

**MEMORANDUM OF AGREEMENT BETWEEN
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AND THE
ILLINOIS STATE HISTORIC PRESERVATION OFFICER
REGARDING REMEDIATION EXCAVATIONS AT THE
OLD AMERICAN ZINC PLANT SUPERFUND SITE
IN ST. CLAIR AND MADISON COUNTIES, ILLINOIS
(SHPO LOG #007060518)**

WHEREAS, the Old American Zinc Plant Superfund Site (“Site”) located in Fairmont City and Washington Park, St. Clair and Madison Counties, Illinois, is on the National Priorities List of sites pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (CERCLA), 42 U.S.C. § 9601, et seq.; and

WHEREAS, the United States Environmental Protection Agency (USEPA) has the authority to respond with removal and remedial actions to address the release or threatened releases of hazardous substances, pollutants or contaminants at the Site pursuant to CERCLA; and

WHEREAS, the Site consists of an approximately 132-acre Facility Area where former zinc smelting operations were conducted, and areas surrounding the Facility Area where elevated concentrations of metals associated with the historic smelter operations were found in various media; and

WHEREAS, USEPA, in accordance with CERCLA, issued a Record of Decision (ROD) in September 2012 and an Explanation of Significant Differences (ESD) in June 2019, which selected and modified, respectively, a final remedial action plan for remedial response actions necessary to address risks to human health and the environment from releases or threats of releases of hazardous substances, pollutants or contaminants at the Site (the “Actions”); and

WHEREAS, the ROD identifies Section 106 of the National Historic Preservation Act of 1966, as amended, 54 U.S.C. § 306108, and its implementing regulations (36 C.F.R. Part 800) (NHPA), as an applicable or relevant and appropriate requirement; and

WHEREAS, the Actions constitute an undertaking under Section 106 of the NHPA and 36 C.F.R. § 800.16(y) (the “Undertaking”); and

WHEREAS, the Undertaking consists of remediation actions at the Site, as indicated in the ROD and ESD, which primarily include excavating and consolidating contaminated material into a common area, developing and placing a cap, and restoring the areas excavated; and

WHEREAS, consistent with the National Contingency Plan (NCP) at 40 C.F.R. Part 300, USEPA has conducted ongoing public outreach, including public meetings and publications since 2012 and will continue public outreach as required under applicable law and as appropriate and consistent with agency priorities; and

WHEREAS, the United States Army Corps of Engineers, St. Louis District (USACE) will serve as cultural-resources consultant on behalf of USEPA for the Undertaking; and

WHEREAS, the Undertaking will occur in part within the boundaries of the Cahokia Mounds National Historic Landmark (11S34 and 11MS2) (the “Landmark”), which became a National Historic Landmark on July 19, 1964 and was listed on the National Register of Historic Places (NRHP) on October 15, 1966; and

WHEREAS, on June 4, 2018, USEPA consulted with the National Park Service (NPS), a bureau of the U.S. Department of Interior, and Director of the Illinois Department of Natural Resources (IDNR), who is the duly designated Illinois State Historic Preservation Officer (SHPO), regarding the Undertaking, pursuant to the NHPA and to 36 C.F.R. § 800.10(c); and

WHEREAS, for this Undertaking the Area of Potential Effects (APE), as defined at 36 C.F.R. § 800.16(d), is the Site as defined in the ROD and ESD; see Figure 1 of Appendix A, *Plan for the Unanticipated Discovery of Historic Properties, Including Human Remains, During Ground Disturbance for the Old American Zinc Plant Superfund Site and Surrounding Areas Remediation Project, Saint Clair and Madison Counties, Illinois* (UDP or “Plan”), and any borrow or disposal pits used in the course of the Undertaking; and

WHEREAS, archaeological sites 11S82, 11S1142, 11S1184, 11S1187, and 11S2120 are within the APE; and

WHEREAS, archaeological site 11S82 is eligible for listing on the NRHP as a contributing element to the Landmark; and

WHEREAS, archaeological sites 11S1142, 11S1184, 11S1187, and 11S2120 are potentially eligible for listing on the NRHP as contributing elements to the Landmark; and

WHEREAS, on July 6, 2018, USEPA, in consultation with the SHPO and NPS, determined that the Undertaking has a potential to have an adverse effect on the Landmark and historic properties outside the Landmark, within the APE of the Undertaking, and has recommended an archaeological survey; and

WHEREAS, in August 2018, per recommendations from the SHPO and NPS, USEPA conducted a cultural resources literature review for the Undertaking, which determined that the project is unlikely to impact deeply buried archaeological deposits within the selected parcels; and

WHEREAS, on September 25, 2018, the SHPO recommended archaeological monitoring for the Undertaking; and

WHEREAS, on October 2, 2018, in accordance with 36 C.F.R. § 800.10, USEPA notified and invited the U.S. Department of the Interior to participate in consultations regarding the Undertaking; and

WHEREAS, on October 3, 2018, in accordance with 36 C.F.R. § 800.6(a)(1) and 36 C.F.R. § 800.10(b), USEPA notified the Advisory Council on Historic Preservation (ACHP), of the Undertaking's potential to adversely affect historic properties and invited it to participate in a Section 106 consultation; and

WHEREAS, the ACHP did not respond to EPA's invitation to consult and therefore has chosen not to participate in the consultation, pursuant to 36 C.F.R. § 800.6(a)(1)(iii); and

WHEREAS, between October 2018 and February 2019, in accordance with 36 C.F.R. § 800.2(c)(2), USEPA and USACE together notified 31 federally recognized tribes ("Tribes"), for which the Landmark and historic properties outside the Landmark may have religious and cultural significance, with no Tribe electing to request consultation to date (Appendix B); and

NOW, THEREFORE, USEPA and the SHPO agree that the Undertaking will be implemented in accordance with the following stipulations in this Memorandum of Agreement ("Agreement") in order to take into account the potential effects of the Undertaking on the Landmark and other NRHP-listed or eligible properties.

STIPULATIONS

USEPA, which may rely on its contractors, representatives, and/or USACE to implement its activities, shall ensure that the following measures are carried out:

I. MITIGATION

A. Plan

- a. During the Undertaking, the UDP will be followed. This document (Appendix A) was drafted in consultation with and approved by the SHPO on April 9, 2019 and revised on September 5, 2019.
- b. Excavations within listed, eligible, or potentially eligible NRHP properties will be monitored and recorded in the same manner as outlined within the Plan for unanticipated historic properties but will not need significance and eligibility assessment.
- c. For commercial borrow areas not previously identified to the SHPO, the SHPO will be notified at least 10 working days in advance of use and the SHPO will consult on whether further monitoring is required within 5 working days of notice. USEPA will implement, or instruct its representatives or contractors to implement, all appropriate and cost-effective measures recommended by the SHPO or qualified archaeologist, subject to the cleanup standards relevant to this Undertaking, the NCP at 40 C.F.R. Part 300, and any other applicable law and necessary considerations.
- d. With respect to the borrow areas identified previously to the SHPO (such as those identified in the letters sent July 9, 2019), USEPA need not provide further notification or conduct further monitoring, mitigation, or consultation.
- e. So long as soils are disposed at disposal sites permitted under State or local laws or regulations for receipt of the materials sent, no monitoring,

documentation, or mitigation activities are required. Otherwise, consultation and use of the UDP is required.

- B. The UDP may be amended by written (preferably e-mail) agreement of USEPA and the SHPO.
- C. To the extent any actor not acting as a representative or contractor of USEPA seeks to enter a private or residential property or conduct any onsite monitoring or other activities, it shall be the responsibility of that actor to obtain the full and appropriate consent or authority to access such property.

D. Emergencies:

- a. In the case of emergencies, emergency response actions, or other instances in which USEPA or its representatives must act immediately to abate imminent or substantial threats to public health, welfare, or the environment, USEPA will act not inconsistent with the NCP, 40 C.F.R. Part 300, and, if applicable, will rely on the national programmatic agreement for emergency responses, Multiple Agency Nationwide PA for Emergency Response Under the National Oil and Hazardous Substances Pollution Contingency Plan (“Emergency PA”), April 30, 2002, available at https://www.achp.gov/sites/default/files/programmatic_agreements/2019-03/nw.doi.dod.epa.noaa.nps.uscg.emergency%20response%20to%20national%20oil%20and%20hazardous%20substances%20pollution%20contingency%20plan.pa.2002.pdf.
- b. In emergency situations as described above for which the Emergency PA is not applicable, the following shall apply:
 - i. If the emergency action has the potential to affect historic properties, USEPA will notify the SHPO, interested Indian tribes, and other parties as appropriate prior to undertaking the Action, when feasible. As part of the notification, USEPA will provide a plan to address the emergency. The SHPO and other parties will have seven (7) calendar days to review and comment on the plan to address the emergency. If the SHPO and other parties do not comment or object to the plan within the review period, USEPA will implement the proposed plan.
 - ii. If USEPA is unable to consult with the SHPO and other parties prior to carrying out emergency actions, USEPA will notify the SHPO and other parties as appropriate within forty-eight (48) hours after the initiation of the emergency action. This notification will include a description of the emergency action taken, the effects of the action(s) to historic properties, and, where appropriate, any further proposed measures to avoid, minimize, or mitigate potential adverse effects to historic properties. The SHPO and other parties will have seven (7) calendar days to review and comment on the proposal where further action is required to address the emergency. If the SHPO and other

parties do not object to the plan within the review period, USEPA will implement the proposed plan.

- iii. Where possible, USEPA will ensure that such emergency actions be undertaken in a manner that does not foreclose future preservation or restoration of historic properties. Where such emergency actions may affect historic buildings, they will be undertaken in a manner that is consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties (www.nps.gov/tps/standards.htm). In addition, where possible, USEPA will ensure that such actions will be done with on-site monitoring by the appropriate preservation professional who meets, at a minimum, the Professional Qualifications Standards in his or her field of expertise.
 - iv. Where the SHPO and/or any other party has reason to believe that a historic property may be adversely affected by an emergency action, the party will submit a request to USEPA to review and comment on that action.
- c. Immediate rescue and salvage operations conducted to preserve life or property are exempt from these and all other provisions of this Agreement.

II. PRIVATE, PERSONALLY IDENTIFIABLE, OR CONFIDENTIAL INFORMATION

To carry out the activities described in this Agreement, USEPA may need to disclose information or documents that contain private, personally identifiable, or otherwise confidential information to the SHPO or other related entities. USEPA will redact private, personally identifiable, or otherwise confidential information or may withhold documents or records containing such information, if redaction is not possible or practicable. The SHPO agrees to keep confidential and notify USEPA if it becomes aware it has received private, personally identifiable, or otherwise confidential information from USEPA or USACE, unless the parties enters a data sharing agreement covering such an exchange.

III. ANTI-DEFICIENCY ACKNOWLEDGEMENT

All commitments made by USEPA in this Agreement are subject to the availability of appropriated funds and separate interagency agreements will set forth USEPA's obligations to expend any appropriations related to activities described herein. Accordingly, nothing in this Agreement, in and of itself, obligates USEPA to expend appropriations or to enter into any contract, assistance agreement, interagency agreement, or incur other financial obligations that would be inconsistent with USEPA budget priorities. This Agreement does not exempt any signatory from USEPA policies governing competition for assistance agreements. Any transaction involving reimbursement or contribution of funds between the parties to this Agreement will be handled in accordance with applicable laws, regulations, and procedures under separate written agreements.

IV. RIGHTS AND BENEFITS

This Agreement does not create any right or benefit, substantive or procedural, enforceable by law or equity, by persons who are not signatories to this Agreement, against any signatory or USEPA, their officers or employees, or any other person. This Agreement does not apply to any person outside of the signatories herein.

V. DISPUTE RESOLUTION

Should any signatory to this Agreement object at any time to any actions proposed or the manner in which the terms of this Agreement are implemented, USEPA shall consult with the signatories to resolve the objection. If the signatories cannot agree regarding a dispute, the signatories shall utilize the procedures provided in 36 C.F.R. § 800.7(a).

VI. EXECUTION


- A. **Effective Date.** This Agreement is effective on the date signed by USEPA and the SHPO.
- B. **Duration.** This Agreement shall terminate if its stipulations are not carried out within five (5) years from the date of its execution. Prior to such time, USEPA may consult with the other signatories to reconsider the terms of the Agreement and amend it in accordance with Stipulation VI.C. below. USEPA shall notify the signatories as to the course of action it will pursue.
- C. **Amendments.** This Agreement may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy is signed by all signatories. Additional parties may become signatories to this Agreement in the future through an amendment to the Agreement in accord with this stipulation.
- D. **Termination.** If any signatory to this Agreement determines that its terms will not or cannot be carried out, that party shall immediately consult with the other signatories to attempt to develop an amendment per Stipulations 0. and VI.C. above. If within thirty (30) days an amendment cannot be reached, any signatory may terminate the Agreement upon written notification to the other signatories. Otherwise, this Agreement will terminate upon completion of the Undertaking and completion of related stipulated activities.
- E. **Counterparts, Signatures.** This Agreement may be executed in counterparts, each of which shall be considered an original and together shall be one and the same Agreement. A facsimile or .pdf copy of this Agreement and any signatures thereon will be considered for all purposes as an original.
- F. **Execution.** Execution of this Agreement and implementation of its terms evidence that USEPA has taken into account the effects of its activities on historic properties and has afforded the ACHP an opportunity to comment.

[Signature Pages to follow]

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(SHPO LOG #007060518)

SIGNATORY

ILLINOIS STATE HISTORIC PRESERVATION OFFICER

By:  Date: May 5, 2020
Robert Appleman
Deputy State Historic Preservation Officer
Illinois Department of Natural Resources

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SIGNATORY

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

By: _____ Date: _____
Kurt Thiede
Regional Administrator
USEPA, Region 5

APPENDIX A

Plan for the Unanticipated Discovery of Historic Properties, Including Human Remains, During Ground Disturbance for the Old American Zinc Plant Superfund Site and Surrounding Areas Remediation Project, Saint Clair and Madison Counties, Illinois

Prepared by

U.S. Army Corps of Engineers (USACE) St. Louis District

Lead Federal Agency

U.S. Environmental Protection Agency

September 2019

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SECTION 1

Introduction

Section 106 of the National Historic Preservation Act (NHPA) is identified in the U.S. Environmental Protection Agency (EPA) 2012 Record of Decision for the Old American Zinc Plant (OAZ) Superfund Site as an applicable or relevant and appropriate requirement. This Unanticipated Discovery Plan (UDP) has been developed as a requirement of NHPA for the OAZ Superfund Site. For EPA to meet the requirements of Section 106 of the NHPA, as defined in the Advisory Council on Historic Preservation (ACHP) regulations "Protection of Historic Properties" (36 Code of Federal Regulations Part 800), and following consultation with the Illinois State Historic Preservation Office (SHPO) and federally recognized Indian tribes, the EPA has developed the following UDP for use during related excavations in Saint Clair County and Madison County, Illinois. This plan will be implemented should new or additional historic properties be encountered during soil sampling, related excavation, and other ongoing activities on the proposed project (undertaking).

This plan has been developed through consultation with the SHPO and federally recognized Indian tribes, in accordance with the regulations embodied in the "Protection of Historic Properties" issued by the ACHP (revised August 2004, www.achp.gov/regs-rev04.pdf). EPA and its cultural resources consultant, United States Army Corps of Engineers, St. Louis District (USACE), reviewed Illinois legislation (Illinois Compiled Statutes, Sections 3410, 3420, 3435, and 3440), which was used in the development of this UDP. Pursuant to the regulatory requirements of Section 106 of the National Historic Preservation Act (54 United States Code [USC] 300101 et seq.) (NHPA) and its implementing regulation 36 Code of Federal Regulations (CFR) 800 (as amended August 5, 2004) the Archaeological Resource Protection Act (ARPA); EPA has established the following procedures to be followed by USACE personnel and contractors in the event that previously unreported and unanticipated historic properties or human remains are found during the project. This document serves as the primary guidance tool for EPA and its contractors so they can comply with applicable federal and state laws and regulations. It is anticipated that the following parties will be Consulting Parties in the event of an unanticipated discovery of human remains or potential historic properties during construction: EPA, Illinois EPA, SHPO, USACE, ACHP, and consulting Indian tribes. To date, no Indian tribes have elected to actively consult or participate in this project or UDP. EPA is the lead federal agency for this action and USACE is operating on their behalf.

An historic property, as defined by the NHPA is, "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion on the National Register; such term includes artifacts, records, and remains which are related to such district, site, building, structure, or object." (54 USC 300308). Excluding human remains, which are addressed separately, all discussion in this document will refer to artifacts, etc., as historic properties.

The significance of a potential historic property will be determined following the guidelines for the National Register of Historic Places provided by the National Park Service, U.S. Department of the Interior (Little et al., 2000). Three areas of focus are the significance (Criteria A, B, C, or D), age (typically older than 50 years), and integrity (level of disturbance) of a potential historic property. Furthermore, significance of a property is based on the following four criteria.

- A. that are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. that are associated with the lives of persons significant in our past; or

- C. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. that have yielded or may likely to yield, information important in history or prehistory.

Pre-contact archaeological sites are typically considered as potentially eligible on the National Register of Historic Places under Criterion D if the areas of significance, age, and integrity are met.

The discovery of potential historic properties is addressed in Sections 2.0 and 3.0 of this document. The discovery of possible human remains is addressed in Section 4.0.

The USACE archaeologist will be on-site archaeologically monitoring during all ground disturbance activities. The USACE archaeologist, on behalf of EPA, will also facilitate and host any Indian tribes that request to perform tribal monitoring throughout the course of the project. USACE, on behalf of EPA, will notify all consulting parties to this UDP 14 calendar days prior to the initiation of construction in case they would wish to monitor or observe the excavations. The USACE archaeologist, and any on site monitors, must follow the procedures outlined in this UDP in the event of an unanticipated discovery of human remains or a potential historic property.

To the extent any actor not acting as a representative or contractor of EPA seeks to enter a private or residential property or conduct any onsite monitoring or other activities, it shall be the responsibility of that actor to obtain the full and appropriate consent or authority to access such property.

In the case of emergencies, emergency response actions, or other instances in which USEPA or its representatives must act immediately to abate imminent or substantial threats to public health, welfare, or the environment, USEPA will act consistent with the NCP, 40 C.F.R. Part 300, and will rely on the national programmatic agreement for emergency responses, Multiple Agency Nationwide PA for Emergency Response Under the National Oil and Hazardous Substances Pollution Contingency Plan, April 30, 2002, available at https://www.achp.gov/sites/default/files/programmatic_agreements/2019-03/nw.doi_.dod_.epa_.noaa_.nps_.uscg_.emergency%20response%20to%20national%20oil%20and%20hazardous%20substances%20pollution%20contingency%20plan.pa_.2002.pdf.

The provisions of this UDP may be amended by written agreement of EPA and the Illinois State Historic Preservation Officer.

Unanticipated Discovery of Potential Historic Properties by On Site Personnel

The onsite USACE archaeologist will document the general excavations. The areal extent of all excavation areas will be recorded with GPS and dimensions measured. Excavated areas will be sketched on aerial photograph backdrops, as well. Profiles of excavation block walls will not be necessary unless a potential historic property is discovered within the profile, but a general measurement of the depth of each excavation area will be recorded. Areal extent of exposure of B-horizon should be recorded within each excavation area if not entirely exposed.

All exposed features will be mapped in plan. This includes major historic Euro-American or modern disturbances such as old house foundations or yard features (privies, cisterns, etc.). When only historic Euro-American or modern features are encountered a sketch map will suffice, however feature dimensions and relative distances should be measured and noted on the map. Scaled plan maps will be made of all exposed Pre-Columbian features and deposits. Feature dimension will be measured, and any exposed material noted. Fill colors and textures will be described, as well.

In some instances, a feature or deposits may need to be formally excavated even if remediation excavations will not impact them further to determine if it is a historic property. These cases will likely be rare and may not occur at all. Potential historic property determinations are discussed below.

At the end of the work, a summary of monitoring activities will be prepared that, minimally, includes digitized maps showing the location of all observed excavated areas and feature plans.

If, during excavation, the USACE archaeologist believes that a potential historic property has been uncovered, the following steps should be taken.

1. As per the definition in Section 1, the object/feature must have the potential to be included in, or eligible for inclusion on the National Register of Historic Places. Objects that are determined by the archaeological monitor to be obviously ineligible (e.g., isolated finds, finds in disturbed contexts, finds otherwise not meeting National Register criteria), will be recorded and left in place without the need for consultation.
2. The USACE archaeologist will notify the appointed Contracting Officer's Representative (COR), who will direct the Contractor in a manner that protects the integrity of the potential historic property. The USACE archaeologist will immediately notify the UDP Consulting Parties.
3. The USACE archaeologist will temporarily pin flag the area surrounding the find to ensure that appropriate measures are taken to protect the discovery from further disturbance. The area will be of sufficient size to protect the discovery itself and provide a buffer zone. A general guideline will be to provide a buffer of approximately 100 feet around the discovery, or within the exposed work area within the property boundary, but this may be adjusted by the USACE archaeologist depending on the nature of the find.
4. The USACE archaeologist will conduct a preliminary evaluation of the significance of the find. No cultural material will be transported from its original location without prior approval of the USACE archaeologist.

5. The USACE archaeologist will assess and document the find using the appropriate forms and a letter report or brief technical memorandum describing the discovery and findings as soon as possible. USACE will strive to conduct the preliminary assessment within 48 hours of an unanticipated discovery of a potential historic property. If discovered at the end of a work week, it will be protected until the next working day to assess. Within 24 hours of assessing and documenting the discovery, the USACE archaeologist will notify the UDP Consulting Parties, and provide them with a copy of the documentation.
6. The UDP Consulting Parties will have 24 hours from receipt of the documentation to review and comment on and/or concur with the USACE archaeologist's findings, as applicable.
7. If the USACE archaeologist determines, in consultation with the UDP Consulting Parties, that the discovery is non-cultural and/or not eligible for inclusion in the National Register of Historic Places (NRHP), the USACE archaeologist will resume monitoring ground disturbing activities.
8. If the USACE archaeologist and the UDP Consulting Parties fail to agree on the significance of the discovery, USACE on behalf of EPA, shall consult with such parties to resolve the objection. If USACE, on behalf of EPA, determines that such objection cannot be resolved, USACE and EPA will:
 - a. Forward all documentation relevant to the dispute, including the USACE and EPA's proposed resolution, to the ACHP. The ACHP shall provide EPA with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, USACE, on behalf of EPA, shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP and the UDP Concurring Parties, and provide them with a copy of this written response. EPA will then proceed with its final decision.
 - b. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, EPA may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, USACE, on behalf of EPA, shall prepare a written response that takes into account any timely comments regarding the dispute from the UDP Consulting Parties, and provide them and the ACHP with a copy of such written response.
9. If the USACE archaeologist determines that the find represents a potentially significant, complex find, then the procedures in Section 3.0 of this plan will be followed.
10. If the USACE archaeologist determines that the discovery constitutes potential human remains, the procedures described in Section 4.0 of this plan will be followed.
11. EPA will handle all public and media notifications. EPA will assign a point of contact to handle all public and media inquiries and correspondence.

SECTION 3

Assessing the Significance of a Potential Historic Property

As discussed above in Section 2.0, the USACE archaeologist will ensure that appropriate measures have been taken to protect the discovery from further disturbance.

1. If the preliminary assessment indicates the discovery is that of a potential historic property, the USACE archaeologist to begin a more detailed assessment of the significance of the discovery and the potential effect of ground disturbance on the discovery. The USACE archaeologist may choose to use an archaeological consultant to conduct a more detailed assessment/limited excavation, under USACE supervision.
2. The USACE archaeologist will notify the UDP Consulting Parties of the decision to perform a more detailed assessment of the find within 24 hours of that decision.
3. If the find is determined to be significant and continuing ground disturbance may damage more of the discovery, the USACE archaeologist will suggest recommendations to the UDP Consulting Parties regarding measures for site treatment. These measures may include:
 - a. Avoid the historic property;
 - b. Formal archaeological evaluation of the historic property;
 - c. Visits to the historic property by SHPO, Indian tribes, and other parties;
 - d. Preparation of a mitigation plan by USACE, on behalf of EPA, for approval by SHPO and UDP Consulting Parties;
 - e. Implementation of the mitigation plan; and
 - f. Approval to resume ground disturbing activities following completion of the fieldwork component of the mitigation plan.
4. If the detailed assessment by the USACE archaeologist or their Archaeological Consultant determines the find to lack significance and not eligible for inclusion in the NRHP, then USACE, on behalf of EPA, will consult with the UDP Consulting Parties regarding approval to resume construction subject to any further mitigation that may be required.
5. If the UDP Consulting Parties fail to agree on the significance of the discovery, USACE, on behalf of EPA, shall consult with such parties to resolve the objection. If USACE, on behalf of EPA, determines that such objection cannot be resolved, USACE and EPA will:
 - a. Forward all documentation relevant to the dispute, including the USACE and EPA's proposed resolution, to the ACHP. The ACHP shall provide EPA with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, USACE and EPA shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP and the UDP Concurring Parties, and provide them with a copy of this written response. EPA will then proceed with its final decision.
 - b. If the ACHP does not provide its advice regarding the dispute within the thirty (30)

day time period, EPA may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, USACE and EPA shall prepare a written response that takes into account any timely comments regarding the dispute from the UDP Consulting Parties, and provide them and the ACHP with a copy of such written response.

6. If EPA finds the discovery is significant, EPA must consult with a qualified archaeologist, pursuant to 48 Fed. Reg. 44716-01, regarding appropriate documentation and/or mitigation plans before resuming work. EPA will implement or instruct its representatives or contractors to implement all appropriate and cost effective measures of the archaeologist's recommendations, subject to the cleanup standards relevant to this Undertaking, the National Contingency Plan at 40 C.F.R. Part 300, and any other applicable law and necessary considerations. Further, EPA will ensure its actions are documented as required under 36 C.F.R. 800.11(e).

Discovery of Human Remains

If an unmarked human grave or skeletal remains are encountered during construction activities, USACE, on behalf of EPA, will comply with applicable state law (Illinois Compiled Statutes, Sections 3410, 3420, 3435, and 3440), as well as taking into account the Advisory Council on Historic Preservation's Policy Statement on the Treatment of Burial Sites (2007).

1. If it is immediately obvious that the skeletal remains found are non-human and are in association with a potential historic property, the procedures described in Section 2.0 will be followed.
2. If it is not certain whether the remains are human, all work will immediately cease within a 100-foot radius, or within the exposed work area within the property boundary, from the point of discovery and the USACE archaeologist will secure the area. The USACE archaeologist will place pin flags in a 100-foot radius around the discovery, or within the exposed work area within the property boundary, cover the remains with a protective cover, and ensure that appropriate measures are taken to protect the discovery from further disturbance. Other means to secure the discovery may include preventing vehicle traffic through the area and posting a guard. All potential human remains, regardless of ancestry, will be treated with dignity and respect.
3. The USACE archaeologist will determine if the potential human remains are likely human. A USACE physical anthropologist may be called upon to assist in the identification.
4. For human remains, the processes outlined in the Illinois Human Skeletal Remains Protection Act (20 ILCS 3440) will be followed for those remains that are.
5. The USACE archaeologist will notify the COR of the discovery in order to notify the contractor and stop work. The USACE archaeologist will then notify the UDP Consulting Parties and the local police.
6. The local police will investigate the human remains and contact the County Medical Examiner.
7. If the human remains are modern, the local police and/or County Coroner will assume responsibility and USACE archaeologist will notify the UDP consulting parties.
8. If the local police and/or County Coroner determines the remains are not modern (in consultation with the USACE archaeologist) or do not reflect a crime scene and/or if they otherwise relinquish their jurisdiction over the remains, the USACE archaeologist, in coordination with EPA, will consult with the UDP Consulting Parties regarding additional steps to be followed. The SHPO will contact IDNR, who oversees the Human Skeletal Remains Protection Act, who in turn will coordinate if the County Coroner transfers jurisdiction.
9. The measures to protect the human remains and any associated artifacts will remain in effect until the human remains and associated artifacts have been fully evaluated and the appropriate treatment of the discovery (if applicable) has been completed. USACE, on behalf of EPA, will consult with the UDP Consulting Parties regarding approval to resume construction subject to any further mitigation that may be required.
10. The USACE archaeologist, on behalf of EPA, will grant clearance to resume work in the vicinity of the find.

If human remains are determined to be non-Native American, the remains will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated in

consultation with the Coroner, SHPO, Illinois Human Skeletal Remains Protection Act (HSRPA) Coordinator, and other appropriate parties. Historic research and consultation with local authorities and historic experts will be conducted by an archaeologist qualified to excavate and analyze human remains in Illinois, to try to determine the possible identity and affiliation of the remains and determine if there are any lineal descendants who should be consulted concerning the treatment of the remains. Notice of the discovery will be published in local media outlets for at least 3 days to assist in identification of lineal descendants.

Contacts for Unanticipated Discoveries

EPA Environmental Contact

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Phone: 312-353-4150

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Illinois Department of Natural Resources

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Office of Realty and Capital Planning
Department of Natural Resources
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Phone: 217-785-4992

St. Clair County Coroner

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Belleville, Illinois 42220
Phone: 618-277-8682

Madison County Coroner

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Edwardsville, Illinois 62025

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Fairmont City Police Department

Name: Scott Penny, Chief

2601 North 41st Street

Fairmont City, IL 62201

Phone: 618-560-6932

Email: spenny@fairmontcityil.com

Washington Park Police Department

Allen Bonds, Chief

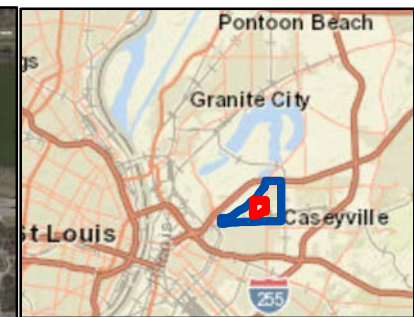
5621 Forest Boulevard

Washington Park, IL 62204

Phone: 618-874-0115

Email: washpark.chief1@gmail.com

Figures



Legend

- Surrounding Properties Boundary
- Facility Area Boundary

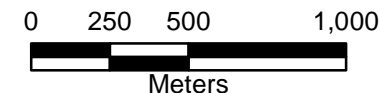
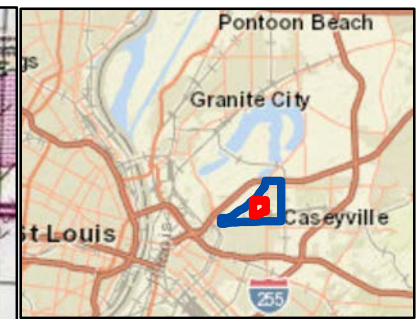
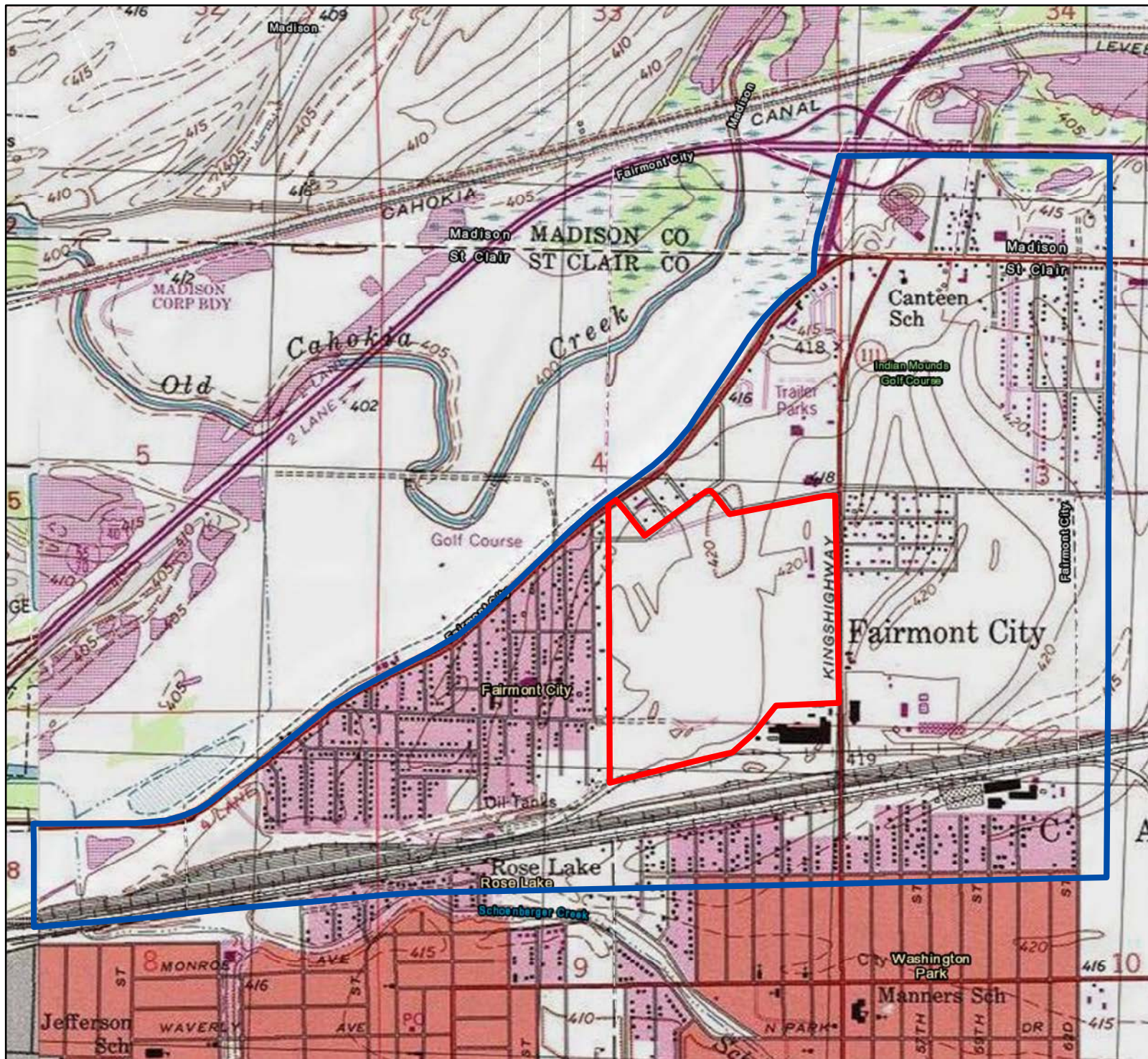


Figure 1.1
Project Overview
Aerial Map

Old American Zinc (OAZ)
Fairmont City, Illinois



**US Army Corps
of Engineers®**
St. Louis District



Legend

- Surrounding Properties Boundary
- Facility Area Boundary



0 250 500 1,000
Meters

Figure 1.2
Project Overview
Topographic Map

Old American Zinc (OAZ)
Fairmont City, Illinois



**US Army Corps
of Engineers®**
St. Louis District

APPENDIX B

**DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, ST. LOUIS DISTRICT
1222 SPRUCE STREET
ST. LOUIS, MISSOURI 63103-2833**

January 31, 2019

Engineering and Construction Division
Curation and Archives Analysis Branch

Ms. Crystal Douglas
Tribal Historic Preservation Officer
Kaw Nation
Drawer 50
Kaw City, OK 74641

SUBJECT: Old American Zinc Plant Superfund Site

Dear Ms. Douglas:

The United States Army Corps of Engineers, St. Louis District (District) is contacting your tribe to initiate consultation on behalf of the Environmental Protection Agency (EPA) for a proposed undertaking in St. Clair County and/or Madison County, Illinois. The District has been designated by EPA to coordinate and facilitate all the cultural and tribal responsibilities for the remedial cleanup plan for the Old American Zinc Plant Superfund Site (OAZ) located in Fairmont City and Washington Park, St. Clair and Madison Counties, Illinois (Enclosure 1, Figure 1).

On September 11, 2012, EPA approved the cleanup plan (Record of Decision) for the OAZ Site. On May 10, 2018, EPA approved an Action Memorandum to conduct a Time-Critical Removal Action (TCRA) to address approximately 50 residential properties containing the most elevated levels of lead and arsenic slag found on those properties. In addition, several of the village-owned alleyways contaminated with slag also required remediation.

The removal cleanup plan calls for the excavation of surface soils contaminated with arsenic, lead, cadmium, and zinc at approximately 200 contaminated properties in the project area and restoration with clean fill. Approximately 50 residential properties were addressed during the TCRA, with the remaining properties to be addressed during the remedial cleanup. In general, excavation of surface soils will be up to 24 inches below ground surface and in locations where slag was used as fill. Residential structures are located on almost all of the properties, but no structures will be impacted. In addition, excavated soils from the residential areas will be hauled and stockpiled at the former OAZ smelter facility. Additional residential properties will be added to the list and remediated based on the results of ongoing sampling. Contaminated soil at the former OAZ smelter facility will also be excavated and restored. The contaminated material from both the facility area and the residential areas will be consolidated on the facility area and covered with a low-permeability cap.

EPA initiated consultation with the Illinois State Historic Preservation Office (ISHPO) and the National Park Service (NPS) on June 4, 2018. Based on that consultation, a Cultural Resources Literature Review for the Old American Zinc Plant Superfund Site, Madison and St. Clair

Counties, Illinois and an Unanticipated Discovery Plan (UDP) and Archaeological Monitoring Plan for Cultural Resources for the Old American Zinc Plant Superfund Site, St. Clair and Madison Counties, Illinois were developed. These documents are attached as Enclosures 1 and 2, respectively. The project area is shown in Figures 1 and 2 of Enclosure 1.

Though EPA only anticipated excavating in previously disturbed areas for the time critical removal of contaminated soils where slag was present, the ISHPO recommended that an archaeologist monitor the excavation activities near known previously recorded mounds and the Cahokia National Historic Landmark. EPA had an archaeologist on-site to monitor the remaining TCRA, and the UDP included monitoring protocols as agreed to with the ISHPO. The EPA sent consultation letters to the Osage Nation and the Department of the Interior on October 2, 2018. Further, in consultation with the ILSHPO, the EPA sent notification letters to eight Native American tribes on October 9, 2018: the Kaw Nation, the Kickapoo Tribe of Oklahoma, the Kickapoo Traditional Tribe of Texas, the Kickapoo Tribe in Kansas, the Miami Tribe of Oklahoma, the Peoria Tribe of Indians of Oklahoma, the Ponca Tribe of Nebraska, and the Ponca Tribe of Oklahoma.

The District will be coordinating and facilitating cultural resources and tribal consultation on behalf of EPA for the remedial action phase of the project, with cleanup anticipated to begin in spring 2019. A copy of the final remedial design report can be provided upon request.

The District, on behalf of the EPA, would like consultation with your tribe to address any cultural and historic resource issues, pursuant to the regulations implementing Section 106 of the National Historic Preservation Act (36 CFR Part 800). Your response to this letter, acknowledging your interest in participating in this undertaking as a consulting party, and in identifying any affected properties that may exist within the project's area of potential effects for the remedial action phase, is greatly appreciated.

If your tribe has any questions, comments, or areas of concern, please contact me, or Chris Koenig (District Archaeologist and Tribal Liaison) at telephone number (314) 331-8151, or e-mail at chris.j.koenig@usace.army.mil.

Respectfully,

Rochelle R. Hance
Chief, Curation and Archives Analysis
Branch

Enclosures

Cultural Resources Literature Review for the Old American Zinc Plant Superfund Site, Madison and St. Clair Counties, Illinois

WA No. 224-RDRD-B5A1/Contract No. EP-S5-06-01

Prepared for



August 2018

ch2m.SM

Executive Summary

On behalf of the U.S. Environmental Protection Agency (EPA), CH2M HILL, Inc. (CH2M), conducted a cultural resources literature review for the Old American Zinc (OAZ) Plant Superfund Site (Project) in Madison and St. Clair Counties, Illinois. The Project, encompassing approximately 503.49 hectares (1,244.14 acres), including the 63-hectare (156-acre) OAZ facility, is situated within the community of Fairmont City, Illinois. While the site is defined as the 503.49-hectare (1,244.14 acre) area of properties surrounding the OAZ facility, select properties, primarily west and southwest of the facility, will be subject to soil sampling and removals to remediate contaminated areas, which are deemed an imminent human health hazard, by EPA.

The project consists of taking soil samples using a 3- to 3.5-inch hand auger, from the top 24 inches of ground surface at select residential properties within Fairmont City and Washington Park, to test for zinc, arsenic, cadmium, and lead. Residences found to have elevated levels of these metals are in turn proposed to be mitigated by excavating contaminated soil and backfilling the impacted area with clean soil. To date, the design and project plan for removal and remediation of contaminated soils has not been completed, although an emergency action is being completed at some properties with elevated concentrations of the metals. These actions are being undertaken by EPA pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, 42 United States Code Section 9601 et seq. (Superfund). As such, this project is subject to review under the National Historic Preservation Act of 1966, as amended, and the regulations (36 *Code of Federal Regulations* Part 800) outlined by the Advisory Council on Historic Preservation. The EPA is the lead federal agency.

CH2M conducted a records search between June 15 and 22, 2018, using the Illinois Historic Preservation Agency Cultural Resources Management Report Archive, the Illinois Archaeology Survey (IAS) Inventory of Archaeological Sites (Illinois Site Geographic Information System), and the Historic Architectural Resource Geographic Information System (HARGIS) to identify previously recorded cultural resources and/or investigations in or near the Project area. The literature review revealed that one National Historic Landmark (NHL) and National Register of Historic Places (NRHP)-listed resource, one United Nations Educational, Scientific, and Cultural Organization (UNESCO) World Heritage Site, 59 IAS-listed archaeological sites, six resources that have been determined eligible for listing in the NRHP, 22 IAS-listed mound sites, 26 HARGIS-listed resources, and one IAS-listed cemetery have been inventoried within 1.6 kilometers (one mile) of the project. Additionally, at least 60 previous cultural resources investigations have been documented within 1.6 kilometers (one mile) of the project. Of the cultural resources inventoried within the study area, one NHL and NRHP-listed resource, six IAS-listed archaeological sites, three IAS-listed mound sites, one HARGIS-list resource, and 16 of the previous cultural resources investigations are located within the project area.

The most significant of these resources within the project area is the Cahokia Mounds site, which was listed as an NHL in 1964, and placed on the NRHP in 1966 (NR 66000899; 11MS2 and 11S34). The Cahokia Mounds site is one of the most prominent archaeological sites in North America. Two site numbers have been assigned to Cahokia Mounds (11MS2 and 11S34), and each of the sites has been further divided into 24 “site divisions.” Portions of eight of the 24 Cahokia Mound site divisions fall within the project area. Cahokia is also a UNESCO World Heritage Site. The parcels currently included in the remediation plan are located outside of the current UNESCO World Heritage Site boundaries. The remaining archaeological resources within the project area are composed of Late Woodland through Mississippian period habitation sites, resulting from the region’s heavy utilization during these periods.

Numerous and sometimes complex prehistoric and historic sites have been identified within and near the project area. Review of previously identified archaeological sites and historic mapping indicate a high probability of both prehistoric and historic archaeological deposits to be located in the Project’s vicinity.

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Acronyms and Abbreviations

A.D.	Anno Domini
CH2M	CH2M HILL, Inc.
CRM	Cultural Resources Management
EPA	U.S. Environmental Protection Agency
EWP	East West Project
GIS	Geographic Information System
HARGIS	Historic Architectural Resource Geographic Information System
HSRPA	Human Skeletal Remains Protection Act
IAS	Illinois Archaeology Survey
ID	identification
IHPA	Illinois Historic Preservation Agency
NHL	National Historic Landmark
NRHP	National Register of Historic Places
OAZ	Old American Zinc
UNESCO	United Nations Educational, Scientific, and Cultural Organization

Introduction

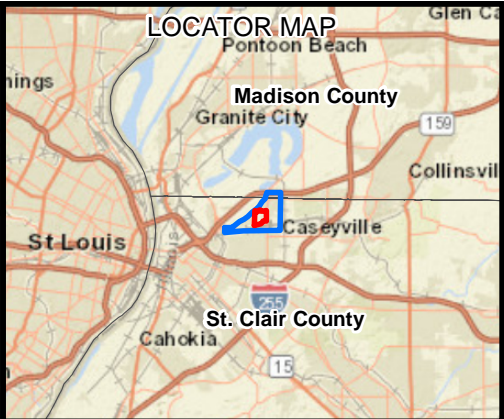
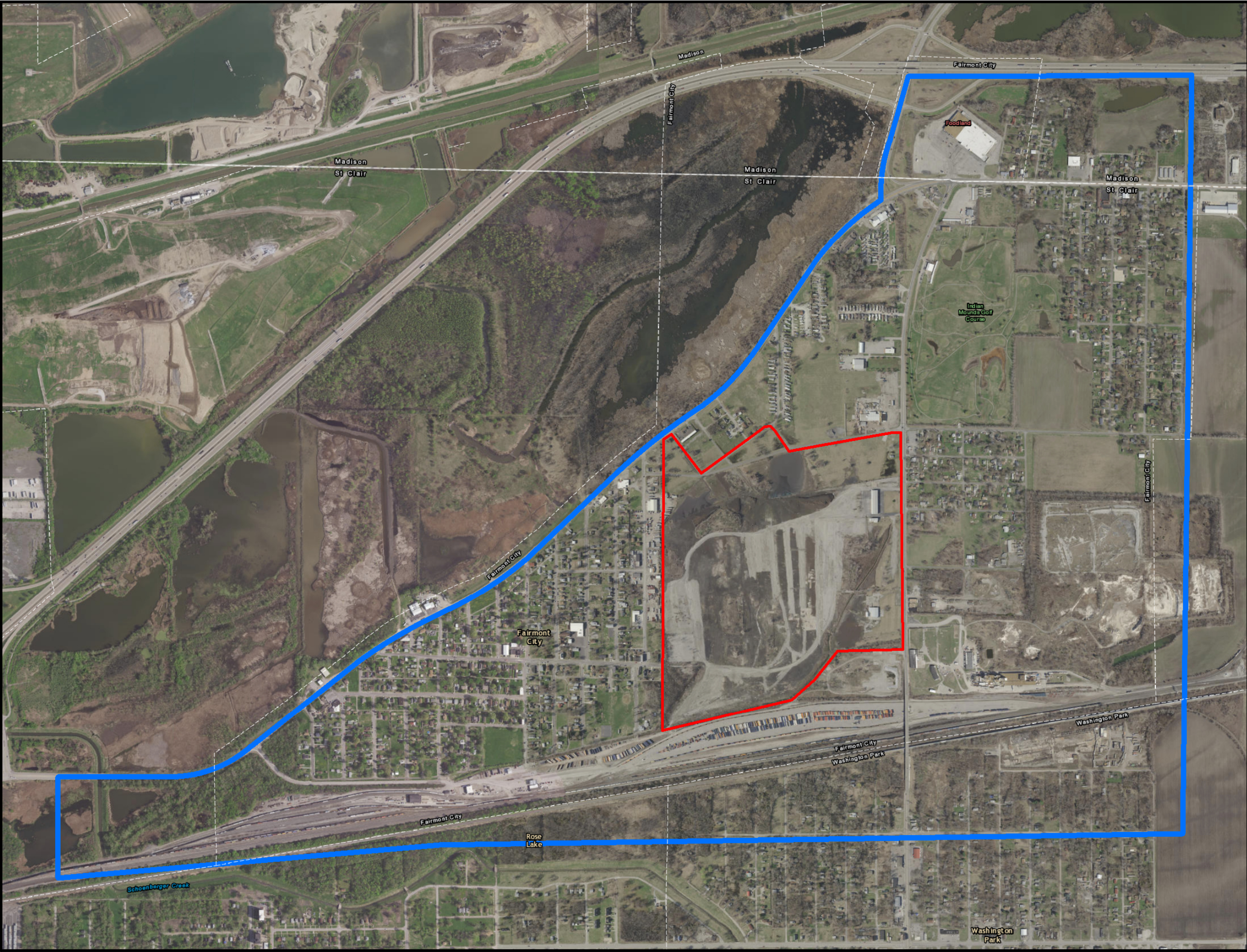
On behalf of the U.S. Environmental Protection Agency (EPA), CH2M HILL, Inc. (CH2M) conducted a cultural resources literature review for the proposed Old American Zinc (OAZ) Superfund Project (Project) in Madison and St. Clair Counties, Illinois. The project encompasses approximately 503.49 hectares (1,244.14 acres), including the 63-hectare (156-acre) OAZ facility, within the Village of Fairmont City, Illinois (Figures 1.1 and 1.2). While the project area is defined as the 503.49-hectare (1,244.14 acre) area of properties surrounding the OAZ facility, select properties will be subject to soil sampling and removals to remediate contaminated areas, which are deemed an imminent human health hazard, by EPA.

The project consists of taking soil samples using a 3- to 3.5-inch hand auger, from the top 24 inches of ground surface at select residential properties within Fairmont City and Washington Park, to test for zinc, arsenic, cadmium, and lead. Residences found to have elevated levels of these metals are in turn proposed to be mitigated by excavating contaminated soil and backfilling the impacted area with clean soil. To date, the design and project plan for removal and remediation of contaminated soils has not been completed, although an emergency action is being completed at some properties with elevated concentrations of the metals. These actions are being undertaken by EPA pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 United States Code, Section 9601 et seq. (Superfund). As such, this project is subject to review under the National Historic Preservation Act of 1966, as amended, and the regulations (36 *Code of Federal Regulations* Part 800) outlined by the Advisory Council on Historic Preservation. EPA is also the lead federal agency.

CH2M conducted a records search between June 15 and 22, 2018, using the Illinois Historic Preservation Agency Cultural Resources Management (CRM) Report Archive, the Illinois Archaeology Survey (IAS) Inventory of Archaeological Sites (Illinois Site Geographic Information System [GIS]), and the Historic Architectural Resource Geographic Information System (HARGIS) to identify previously recorded cultural resources and/or investigations in or near the project area. CH2M gathered information about previously conducted cultural resource investigations and inventoried cultural resources around the project area.

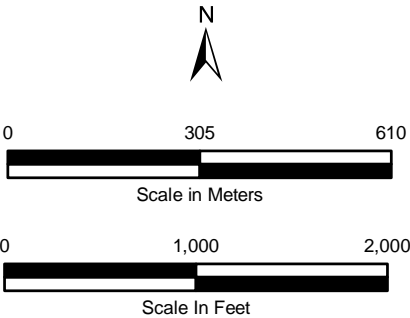
Key personnel committed to the project include Principal Investigator Amy C. Favret and Field Directors Kyle Spurgeon and April Greenberg. Ms. Favret served as principal investigator and report co-author. Mr. Spurgeon conducted the records search, served as report co-author. Ms. Greenberg contributed to report graphics.

Section 2 of this report presents the results of the literature review. Section 3 discusses the results and presents the conclusions and recommendations. Section 4 contains the references cited in this report.



- LEGEND:**
- Facility Area Boundary
 - Surrounding Properties Boundary (Approximate)
 - County or City Boundary

BASE MAP SOURCE:
ESRI World Imagery Layer, 2015



Old American Zinc Plant Superfund Site
Fairmont City, Illinois

FIGURE 1.2
PROJECT OVERVIEW ON
AN AERIAL MAP

PN: 687729	DATE: 8/7/2018
CREATED BY: AG	ch2m
REVIEWED BY: AF	

Literature Review

CH2M conducted background research using the Illinois Historic Preservation Agency CRM Report Archive, Illinois Site GIS, and HARGIS to identify previously recorded cultural resources and/or investigations in or near the project Area of Potential Effects (APE). These databases were consulted between June 15 and 22, 2018. A 1.6-kilometer (one-mile) buffer (study area) was used to identify previously recorded cultural resources and to provide information on the probability of identifying cultural resources within the APE. For the literature review, the following resources were consulted:

- National Historic Landmarks List (NHL)
- National Register of Historic Places (NRHP)
- UNESCO World Heritage Site List
- IAS Inventory of Archaeological Sites
- IAS Inventory of Mound Sites
- Illinois Historic and Architectural Resources (HARGIS)
- Illinois State Museum (ISM) Cemeteries
- IAS Cemeteries
- Previous CRM reports
- County historic maps

Based a review of the records available through the online mapping databases, one NHL and NRHP-listed resource, one UNESCO World Heritage Site, 59 IAS-listed archaeological sites, six resources that have been determined eligible for listing in the NRHP, 22 IAS-listed mound sites, 26 HARGIS-listed resources, and one IAS-listed cemetery have been inventoried within 1.6 kilometers (one mile) of the project (Figures 2.1 through 2.5). Additionally, at least 60 previous cultural resources investigations have been documented within 1.6 kilometers (one mile) of the project. Of the cultural resources inventoried within the study area, one NHL and NRHP-listed resource, six IAS-listed archaeological sites, three IAS-listed mound sites, one HARGIS-list resource, and 16 of the previous cultural resources investigations are located within the project area.

2.1 National Historic Landmarks and National Register of Historic Places

One NRHP-listed and NHL-listed project property is documented within 1.6 kilometers (one mile) of the project (Figure 2.1). The Cahokia Mounds site was listed as an NHL in 1964 and placed on the NRHP in 1966 (NR 66000899; 11MS2 and 11S34). The Cahokia Mounds site is one of the most significant and intensely studied archaeological sites in North America. Spanning more than 4,000 acres at the height of its occupation, the site is the largest expression of a Mississippian period settlement and mound complex (Aten and Bond 1974). The area was initially occupied during the Late Woodland period (Anno Domini [A.D.] 600-800) as observed from the Patrick Phase material recovered from the site. Near A.D. 900, the region's inhabitants began to develop into the Mississippian culture, and through A.D. 1050 (Fairmont Phase), mound construction, elaborate burials, social stratification, and the first Cahokia city plans were developed. Between A.D. 1050-1150 (Stirling Phase), the city began to grow, and the first stockade was constructed (Aten and Bond 1974). During the Morehead Phase (A.D. 1150-1250), Cahokia reached the height of its complexity and regional influence. Maximum population size during this period have varied widely from 40,000 to near 20,000 (Aten and Bond 1974; Pauketat and Lopinot 2000; Pauketat 2004). Between A.D. 1250-1500 (Sand Prairie Phase), the site began a gradual decline (Aten and Bond 1974). Oneota inhabitants established smaller villages near the site after A.D. 1400, and by

A.D. 1600, Native Americans associated with the Illinois confederacy occupied the area. French missionaries also briefly occupied the site in the early 1700s, and in the early 1800s, Trappist monks resided near what is now known as Monks Mound (Aten and Bond 1974).

Key features of the site include at least 120 earthen mounds of varying size and purpose. Platform mounds served as bases for ceremonial or residential structures, while others contained burials of high-ranking members of society, and perhaps their retainers or human sacrificial victims (Aten and Bond 1974). The largest of these mounds, Monks Mound, is the largest prehistoric earthen mound in North America. Other prominent aspects of the site include a rectangular town plan aligned to north/south and east/west axes, a wooden palisade with circular and rectangular bastions that surrounded the inner precinct of the site, a woodhenge area where multiple henges were constructed and operated as solar calendars, and groupings of mounds and houses that formed subcommunity areas (Aten and Bond 1974).

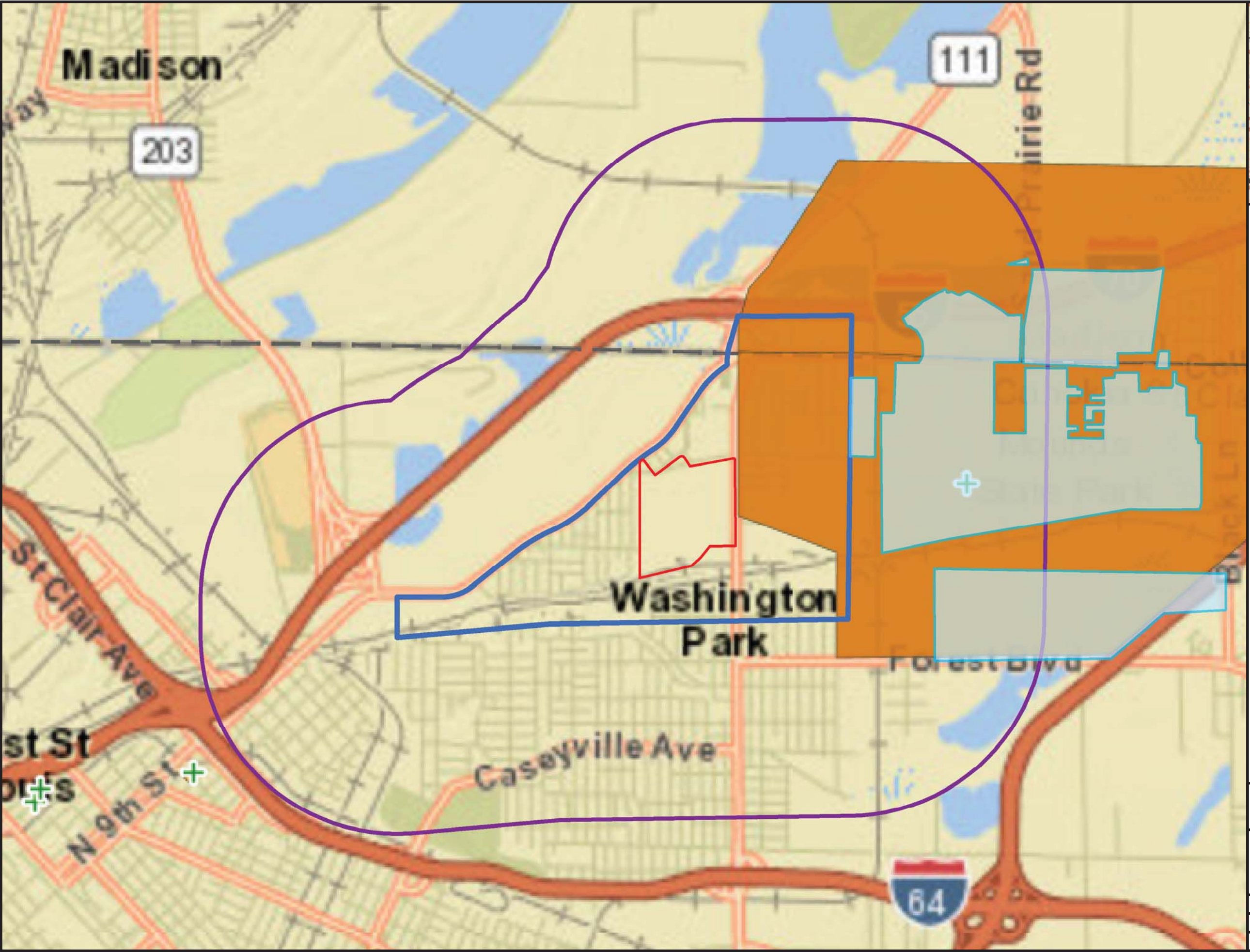
A total of 173.45 hectares (428.60 acres) of Cahokia Mounds, as delineated for the NHL and NRHP, fall within the project footprint (Figure 2.1). These include site divisions 11S34/5, 11S34/6, 11S34/7, 11S34/8, 11S34/9, 11MS2/1, 11MS2/4, and 11MS2/6.

2.2 UNESCO World Heritage Site List

The Cahokia Mounds site is one of only 23 UNESCO World Heritage Sites within the U.S. Of the 23 UNESCO World Heritage Sites within the U.S., Cahokia Mounds is one of 10 that are designated as cultural sites. Inscribed as a World Heritage Site in 1982, the UNESCO designation recognizes the site's significance as the largest pre-Columbian settlement north of Mexico (UNESCO 2013). The site is also noted as the preeminent example of the Mississippian cultural tradition, which at its height, stretched throughout Mississippi River Valley and into the southeastern U.S. The UNESCO listing acknowledges the site's importance as representative of a preurban society in which a political and economic hierarchy facilitated organized labor, communal agriculture, and trade as reflected in the site's layout and design (UNESCO 2013). The current World Heritage Site boundary incorporates a total of 540 hectares (1,460 acres).

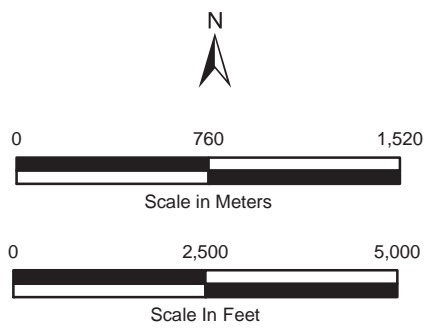
The 2013 UNESCO periodic report notes that the site has no protective buffer in place currently, nor was one implemented at the time of inscription (UNESCO 2013). However, the report also remarks that the site is owned and operated by the State of Illinois as a State Historic Site (via the Illinois Historic Preservation Agency[IHPA]) and protected by state law under the Archaeological and Paleontological Resources Protection Act (20 Illinois Compiled Statutes 3435, 1990), Human Skeletal Remains Protection Act (20 Illinois Compiled Statutes 3440, 1989), and Illinois State Agency Historic Resources Protection Act (Illinois Compiled Statutes 3420, 1990 as amended). Further, the report finds that the site is afforded the highest available level of U.S. federal cultural resources protection as an NHL site.

Review of the current project area indicates that the eastern boundary runs north to south generally along North 63rd Street. As such, the project area is located adjacent to, but outside and to the west of, the westernmost portion of the Cahokia Mounds World Heritage Site area (Figure 2.1).



- LEGEND:**
- OAZ Facility Boundary
 - Surrounding Properties Boundary (Approximate)
 - Study Area
 - Cahokia UNESCO World Heritage Boundary
 - Cahokia NRHP Site Boundary

BASE MAP SOURCES:
Illinois Archaeology Survey Inventory of
NHL and NRHP Sites (IAS), accessed 6/20/2018
and ESRI World Street Map Layer



*Old American Zinc Plant Superfund Site
Fairmont City, Illinois*

FIGURE 2.1
IAS NATIONAL HISTORIC
LANDMARK (NHL) AND NRHP MAP

PN: 687729	DATE: 7/9/2018
CREATED BY: AG	ch2m.
REVIEWED BY: AF	

2.3 Illinois Inventory of Archaeology Sites

In addition to Cahokia Mounds (11MS2 and 11S34), CH2M identified 57 archaeological sites within 1.6 kilometers (one mile) of the project (Table 2.1; Figure 2.2). Of the IAS-listed sites, including Cahokia Mounds, 30 are prehistoric, nine are historic, and 20 are multicomponent, containing both prehistoric and historic cultural materials. Fifty of the IAS-listed sites contain a prehistoric component, including 34 that have an unassigned temporal affiliation. Although many of the prehistoric sites are affiliated with more than one temporal association, the period predominately represented is the Mississippian (n=28). The remaining sites with temporal associations range from the Archaic through the Late Woodland periods. Prehistoric sites with no temporal association are largely lithic or ceramic scatters with no dialogistic material recovered. Of the 29 sites with a historic component, the majority are associated with former residential areas or farmsteads and generally date to the mid-19th century to the post-war period.

Of all sites within 1.6 kilometers (one mile) of the project, two are NRHP-listed (11S34 and 11MS2) and four have been determined NRHP eligible (11S706, 11S1445, 11MS1316, and 11MS1548). An additional seven sites are recorded with a status of "HSRPA Burial Law" (11S82, 11S706, 11S1525, 11S2040, 11MS1375, 11MS1385, and 11MS1548). This indicates that these sites may contain or have been confirmed to contain human burials and are subject to the Illinois Human Skeletal Remains Protection Act (HSRPA). Of these seven sites, 11S82 is located within the project footprint. Further, six sites are recorded with a status of having been recommended for Phase II archaeological testing or have already been submitted to Phase II testing. All remaining sites are recorded without a compliance status or are listed as having not been formally reviewed.

Six sites identified within 1.6 kilometers (one mile) of the project are located within or partially within the project footprint. The most significant of these is the NRHP-listed and NHL Cahokia Mounds site, which is divided between archaeological site number 11S34 for the portions in St. Clair County, and 11MS2 in Madison County. Both of these sites have been divided into divisions or tracts to better manage the size and complexity of the Cahokia Mounds resources. The site is divided into 12 sections in each county: 11S34/1 through 11S34/12 in St. Clair County, and 11MS2/1 through 11MS2/12 in Madison County. Within St. Clair County, sections 11S34/5, 11S34/6, 11S34/7, 11S34/8, and 11S34/9 are within the project footprint. In Madison County, sections 11MS2/1, 11MS2/4, and 11MS2/6 are located within the project footprint.

Four additional sites are located within or partially within the project footprint. Site 11S82 (Fairmont City Site) is recorded as 3 separate mound locations and one occupation area dating to the Late Woodland through Mississippian Period. Mound 1 is located between 48th and 49th Streets off of Collinsville Road, Mound 2 at 3501 Cookson Road, and Mound 3 at the southwest corner of 31st and Collinsville Road. Site 11S1142 (Ananab Tilps Site) was recorded within the upper portion of a ditch west of Illinois Route 111 and is composed of a low-density flake scatter of unknown prehistoric association. A very small portion of site 11S1184 (Chasedawn Site) is also located within the project area, northeast of North 62nd Street. This site is recorded as a Late Woodland period habitation site consisting of eight chert flakes, one biface fragment, and 2 grog/grit tempered ceramic fragments. Lastly, a small portion of site 11S1445 (Emma Frances Site) is partially within the project area along Collinsville Road. Review of IAS files indicates that this site is a Late Woodland to Mississippian period prehistoric habitation site and includes an early industrial to post-war historic component (1871-Post 1946). The site has undergone Phase II archaeological testing and was determined to be NRHP-eligible.

The majority of sites located outside of the project area are prehistoric or historic habitation areas and artifact scatters, most of which have not been formally reviewed for NRHP-eligibility. Perhaps the most noteworthy site outside of the project footprint is the Metro East Mounds site (11S706) located near the I-55/70 and I-64 interchange and the former site of the National Stock Yards. Kruchten and Koldehoff

(2009) have described this site as the second only in size to Cahokia Mounds as a Mississippian mound and town complex. They also state that Cahokia and the Metro East Mounds are linked by a series of mounds, and together the two sites functioned as the focal political and administrative center for the Cahokia polity. Multiple investigations at this site have revealed numerous mound sites and thousands of structure and pit features have been identified in association with the Metro East Mounds. At its closest, the McCarty Tract of the Metro East Mounds is located approximately 725 feet southwest of the Project area.

Table 2.1. IAS-listed Archaeological Sites within the Study Area.

Site Number/Name	Temporal Affiliation	Archaeological Site Type	Compliance Status
11S34/Cahokia Mounds	Prehistoric – Archaic, Middle Archaic, Late Woodland, Mississippian; Historic – 1673-Post 1946	Habitation/Multiple Mound Locations	NRHP-Listed; NHL
11S44	Prehistoric - Mississippian	Camp/Habitation	Not Recorded
11S45	Prehistoric – Possible Archaic; Woodland; Mississippian	Camp/Village	Not Recorded
11S82/Fairmont City Site	Prehistoric – Late Woodland; Mississippian	3 Mound Locations/Occupation	HSRPA Burial Law
11S316/Axis Site	Prehistoric – Archaic; Historic – Early 20 th Century	Camps/Habitation	Recommended for Phase II
11S623/St. Martin School Site	Prehistoric – Late Woodland; Mississippian	Series of Camps	Not Reviewed
11S706/Metro East Mounds	Prehistoric – Late Woodland; Mississippian	Habitation/Multiple Mound Locations	Determined Eligible, HSRPA Burial Law
11S1142/Ananab Tilps Site	Prehistoric – Undetermined	Habitation	Not Reviewed
11S1184/Chasedawn	Prehistoric – Late Woodland	Habitation	Not Reviewed
11S1185/Dawnchase	Prehistoric – Mississippian	Lithic Scatter	Not Reviewed
11S1186/Laura D.	Prehistoric – Undetermined	Lithic Scatter	Not Reviewed
11S1187/D Site	Prehistoric – Undetermined	Lithic Scatter	Not Reviewed
11S1188/62 nd Street	Prehistoric – Undetermined	Isolated Find	Determined Not Eligible
11S1206	Prehistoric – Late Woodland; Mississippian	Unspecified	Phase II, Determined Not Eligible
11S1445/Emma Frances Site	Prehistoric – Late Woodland, Mississippian; Historic – 1871-Post 1946	Habitation	Phase II Completed, Determined Eligible
11S1525/Canaday School	Historic – 1781-1900	Cemetery/Human Remains and Coffin Components	HSRPA Burial law
11S1790/Old 8 th Street	Historic – 1781-1900	Habitation	Not Reviewed

Table 2.1. IAS-listed Archaeological Sites within the Study Area.

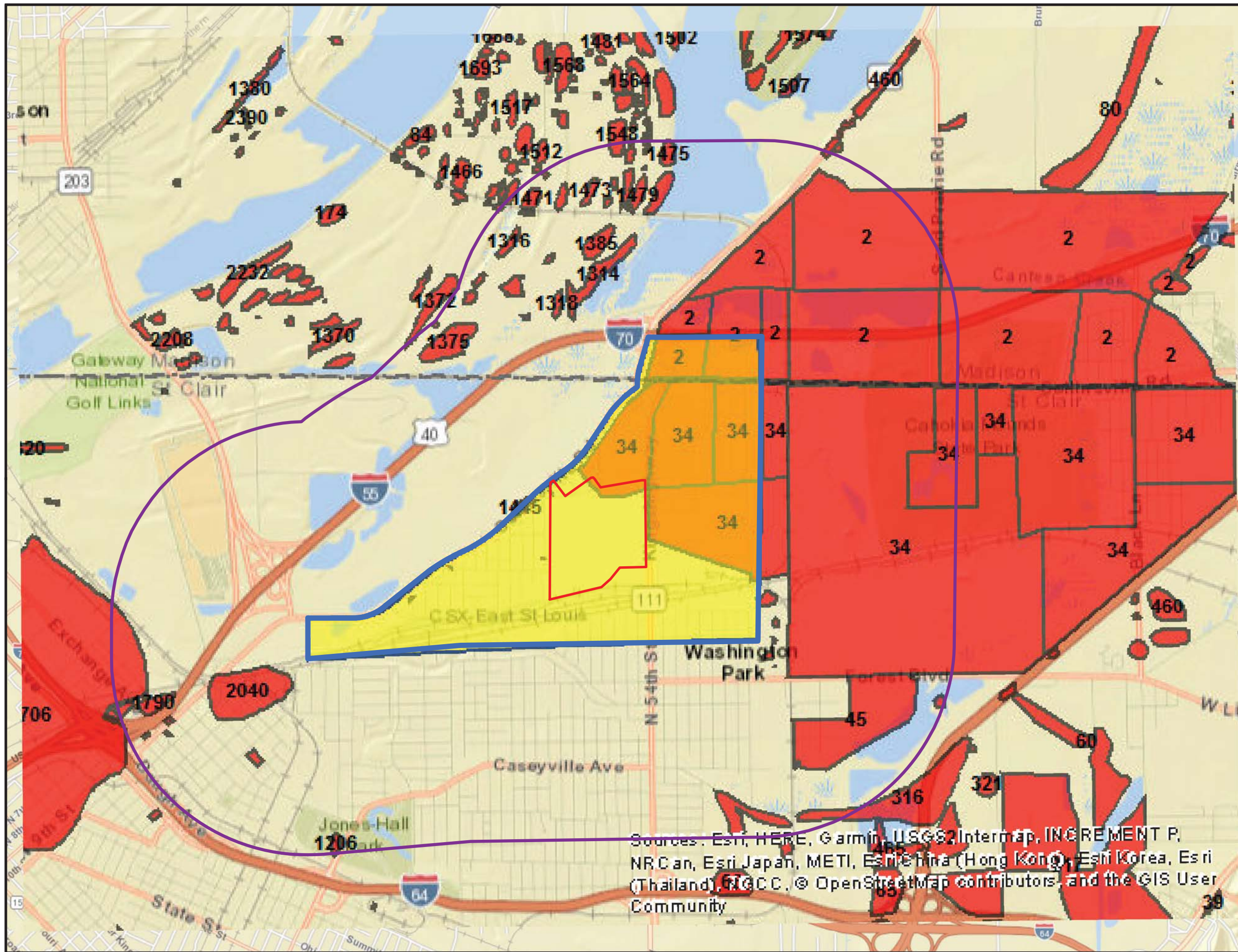
Site Number/Name	Temporal Affiliation	Archaeological Site Type	Compliance Status
11S1791/Ninth and Exchange	Historic – 1841-1870	Habitation	Not Reviewed
11S1792/Mary B. Young	Prehistoric – Late Archaic; Historic – 1871-Post 1946	Habitation	Not Reviewed
11S1793/Sexton's Subdivision	Historic – 1901-Post 1946	Habitation	Not Reviewed
11S1796/Henry Eggert	Historic – 1871-Post 1946	Habitation/Neighborhood Associated with Henry Eggert	Not Reviewed
11S1811/Block 17	Historic – 1901-Post 1946	Habitation	Not Recorded
11S2040	Unspecified (Late Woodland; Mississippian)	McCarty Tract Mound Group (Tract 7); *Previously included with site 11S706	HSRPA Burial Law
11MS2/Cahokia Mounds	Prehistoric –Late Woodland, Mississippian; Historic – Generic	Habitation/Multiple Mound Locations	NRHP-Listed; NHL
11MS462/Joseph Niehaus Site	Prehistoric –Mississippian	Habitation	Not Recorded
11MS1314/Canteen Lake #1 Site	Prehistoric –Mississippian; Historic – Unspecified	Habitation	Recommended for Phase II
11MS1315/Canteen Lake #2 Site	Prehistoric –Mississippian	Habitation	Recommended for Phase II
11MS1316/Aufderheide Site	Prehistoric –Mississippian	Unspecified	Phase II Completed, Determined Eligible
11MS1318/Truck Farm Site	Prehistoric –Mississippian	Habitation/Farmstead	Part Not Eligible
11MS1372	Prehistoric –Late Woodland/Emergent Mississippian	Unspecified	Not Eligible
11MS1373	Prehistoric –Emergent Mississippian; Historic – 20 th Century	Unspecified	Not Recorded
11MS1374	Prehistoric –Emergent Mississippian; Historic – 20 th Century	Unspecified	Not Recorded
11MS1375/Nasholin	Prehistoric –Late Woodland, Mississippian; Historic – 1901-Post 1946	Habitation/Mound	HSRPA Burial Law
11MS1385	Prehistoric –Mississippian; Historic – Generic	Habitation/Possible Mound	HSRPA Burial Law
11MS1468/Scott Land Site	Prehistoric –Mississippian; Historic – Unspecified	Unspecified	Not Reviewed
11MS1471/Aufderheide Lane	Prehistoric – Unspecified Historic – Unspecified	Unspecified	Recommended for Phase II

Table 2.1. IAS-listed Archaeological Sites within the Study Area.

Site Number/Name	Temporal Affiliation	Archaeological Site Type	Compliance Status
11MS1472/Two Track House	Prehistoric – Unspecified Historic – Unspecified	Unspecified	Not Reviewed
11MS1473/Marsh Boy Site	Prehistoric – Unspecified Historic – Unspecified	Unspecified	Not Reviewed
11MS1474/Discretion Site	Prehistoric - Unspecified	Lithic Scatter	Not Reviewed
11MS1475/John Cowan Site	Prehistoric – Unspecified Historic – Unspecified	Unspecified	Not Reviewed
11MS1476/Diamond Club Site	Prehistoric – Emergent Mississippian; Historic – Unspecified	Unspecified	Not Reviewed
11MS1477/Zurkuhlen Site	Prehistoric - Unspecified	Lithic Scatter	Not Reviewed
11MS1478/GC Crater Minor	Prehistoric - Unspecified	Lithic Scatter	Not Reviewed
11MS1479/GC Crater Site	Prehistoric - Mississippian	Unspecified	Not Reviewed
11MS1514/Sweet Flower Site	Prehistoric - Mississippian	Possible Habitation/Unspecified	Not Reviewed
11MS1548/Morrison Site	Prehistoric – Emergent Mississippian, Early Mississippian	Habitation/Village	Determined Eligible, HSRPA Burial Law
11MS1684	Prehistoric - Unspecified	Lithic Scatter	Not Reviewed
11MS1685	Prehistoric - Unspecified	Unspecified	Not Reviewed
11MS1704	Prehistoric – Late Woodland, Mississippian; Historic – Generic	Habitation	Not Reviewed
11MS1705	Prehistoric – Late Woodland, Mississippian	Habitation	Not Reviewed
11MS1706	Historic – 1841-1870	Unspecified	Not Reviewed
11MS1712	Prehistoric – Late Woodland, Mississippian; Historic – Generic	Habitation	Not Reviewed
11MS1713	Prehistoric – Late Woodland, Mississippian	Habitation	Not Reviewed
11MS1715	Historic – 1841-1870	Habitation	Not Reviewed
11MS2043	Prehistoric – Unspecified; Historic – Post 1946	Lithic Scatter/Historic Scatter	Not Reviewed
11MS2044	Historic – Generic	Unspecified	Not Reviewed
11MS2045	Prehistoric – Unspecified; Historic – 1901-Post 1946	Lithic Scatter/Historic Scatter	Not Reviewed
11MS2046	Prehistoric – Unspecified	Lithic Scatter	Not Reviewed

Table 2.1. IAS-listed Archaeological Sites within the Study Area.

Site Number/Name	Temporal Affiliation	Archaeological Site Type	Compliance Status
11MS2211	Prehistoric – Late Woodland, Mississippian	Habitation	Not Reviewed



LEGEND:

- IAS Archaeological Site (number represents site ID)
- OAZ Facility Boundary
- Surrounding Properties Boundary (Approximate)
- Study Area

BASE MAP SOURCES:
Illinois Archaeology Survey Inventory of Archaeological Sites (IAS), accessed 6/20/2018 and ESRI World Street Map Layer

N

0 760 1,520
Scale in Meters

0 2,500 5,000
Scale in Feet

Old American Zinc Plant Superfund Site
Fairmont City, Illinois

FIGURE 2.2
IAS INVENTORY OF
ARCHAEOLOGICAL SITES MAP

PN: 687729	DATE: 7/26/2018
CREATED BY: AG	ch2m
REVIEWED BY: AF	

2.4 Illinois Archaeology Survey - Mound Sites

Twenty-two IAS-listed Mound sites have been documented within 1.6 kilometers (one mile) of the project (see Figures 2.3). All 22 of these records correspond to inventoried IAS archaeology sites with mound components or recorded with a HSRPA Burial Law status (likely to contain burials) as included in Section 2.3 above. Many of these records correspond to areas where numerous mounds have been inventoried, and therefore are not indicative of 22 individual mounds; rather they indicate 22 areas that contain one or more mounds. These sites are 11S34 and 11MS2 (Cahokia Mounds), 11S82 (Fairmont City Site), 11S706 (Metro East Mounds), 11MS1375, 11MS1385, 11MS1548 (Morrison Site), and 11S2040 (McCarty Tract). Of these, Cahokia Mounds (11S34 and 11MS2), and the Fairmont City Site (11S82) are located within portions of the project footprint.

2.5 HARGIS-Listed Resources

There are a total of 26 HARGIS-listed resources within the 1.6-kilometer (one mile) study area (Table 2.2; Figure 2.2). All of the identified HARGIS resources are located within St. Clair County. The Cahokia Mounds site represents the only NRHP-listed HARGIS resource within 1.6 kilometers (one mile) of the project. Two additional resources have been determined NRHP-eligible. These include a bridge (HARGIS #154974) carrying 4th Street over Schoenberger Creek and a bridge (HARGIS #154975) carrying 32nd Street over Schoenberger Creek. The remaining 24 HARGIS-listed resources have not been evaluated for NRHP-eligibility or the status was not recorded. These resources are predominately residential, or church properties located south and west of the project area, near the Rose Lake neighborhood and the I-55/I-70 and I-64 interchange. Only one HARGIS-listed resource is located within the project footprint. Resource 522423 is a single house inventoried as “Rural Survey Property.”

Table 2.2. HARGIS-Listed Resources within the Study Area.

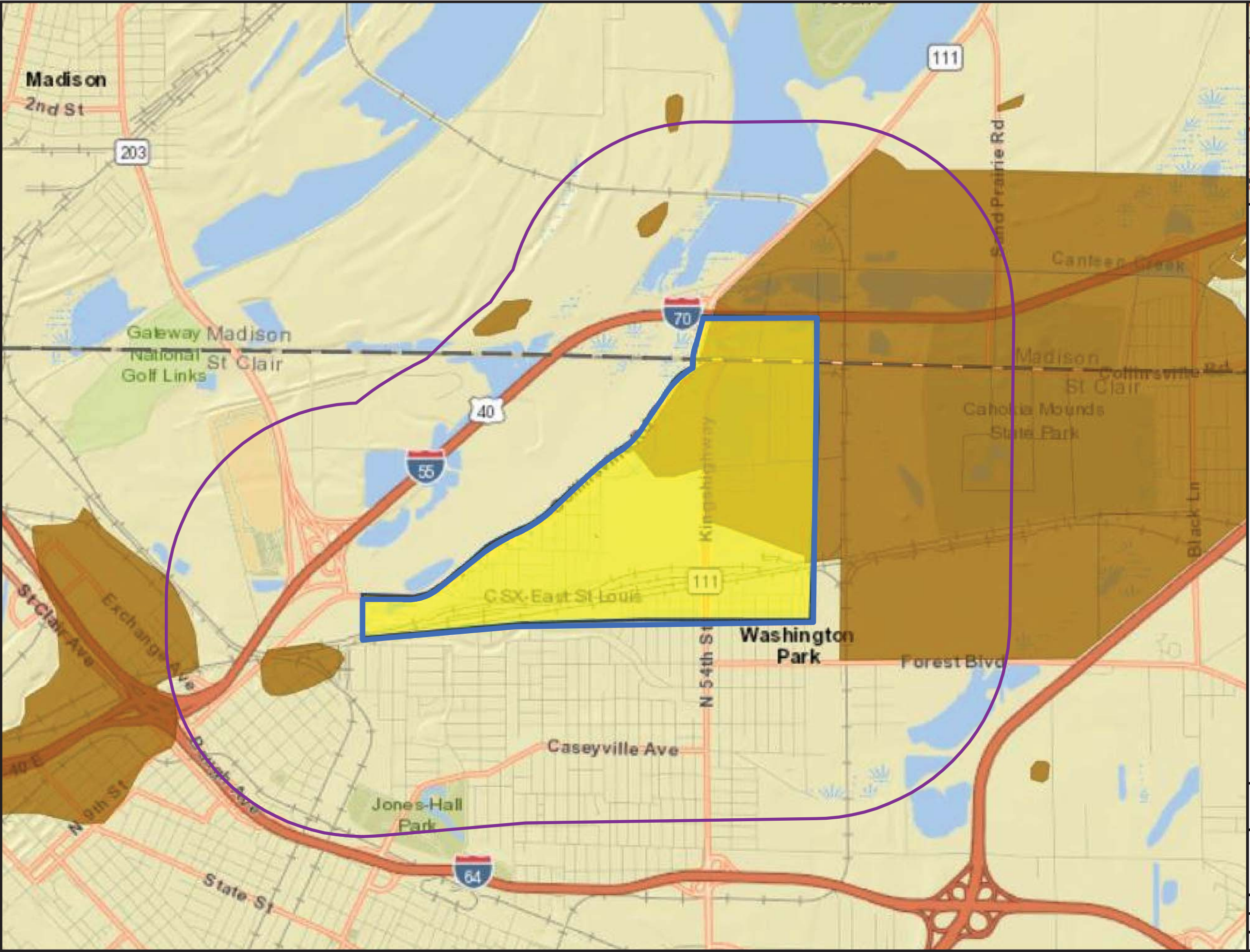
HARGIS Number	Property Name	NRHP Status	Location
200451	Cahokia Mounds	NRHP-Listed	7850 Collinsville Road, Cahokia Mounds State Park
522423	Rural Survey Property	Undetermined	3N 9W S34
104310	----	Undetermined	1648 46th
154974	Bridge carrying 40th St. over Schoenberger Creek – E. St. Louis	Determined NRHP-Eligible	0.03 mile north of Park Drive
154975	Bridge carrying 32nd St. over Schoenberger Creek - E. St. Louis	Determined NRHP-Eligible	0.06 mile north of Park Drive
104222	----	Undetermined	3912 Caseyville
103767	----	Undetermined	3901 Caseyville
104221	----	Undetermined	3717 Caseyville
104309	----	Undetermined	1782 36th
104308	----	Undetermined	1752 36th
104228	----	Undetermined	3205 Forest
104236	----	Undetermined	3242 Lincoln

Table 2.2. HARGIS-Listed Resources within the Study Area.

HARGIS Number	Property Name	NRHP Status	Location
104237	----	Undetermined	3248 Linden
104251	----	Undetermined	1707 Park
103795	----	Undetermined	1640 25th
103796	----	Undetermined	1800 25th
103779	----	Undetermined	2030 Lynch
104282	----	Undetermined	1516 Winstanley
104281	----	Undetermined	1326 Winstanley
104292	----	Undetermined	1101 9th St.
103529	----	Undetermined	Southeast corner Baugh and 9th
104215	----	Undetermined	919 Baugh
163508	----	Undetermined	20th St. at I-64
104216	----	Undetermined	1325 Baugh
104217	----	Undetermined	1405 Baugh
103763	Immaculate Conception Church	Undetermined	Northeast corner of Baugh and 15th

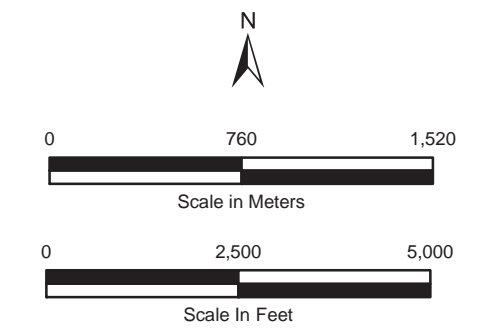
2.6 Illinois State Museum and Illinois Archaeology Survey Cemetery Files

One previously inventoried cemetery is located within 1.6 kilometers (one mile) of the project (see Figure 2.4). The Canaday School cemetery (IAS cemetery index #163201525), located outside of the project area along Lake Avenue between North 15th and North 18th streets, is also listed in the IAS as archaeological site 11S1525. Site records indicate that in 2002, during demolition of the Canaday School and construction of the new Emerson Park School in East St. Louis, human remains, and coffin components were discovered. Archaeological survey work conducted at the site following the discovery resulted in the excavation of a small portion of the site, which identified a total of 200 historic-era graves (Koldehoff et al. 2002). Historic research at the site indicated that the cemetery was opened in 1817, and later closed in 1889. Tombstones collected during the excavations dated to the 1870s and 1880s, with coffin and hardware being typical of the mid to late nineteenth century. Archival research indicated that the cemetery was moved prior to construction of the Canaday School in 1919; however, archaeological results suggest that tombstones were removed but the human remains were not (Koldehoff et al. 2002). Osteological investigations displayed a wide range of ethnicities among the individuals, some of whom has indications of nutritional distress and poor dental hygiene. Koldehoff et al. (2002) state that the cemetery was largely intact and may contain as many as 4,000 burials. Additionally, two prehistoric pit features and 14 artifacts were found in association with the site, indicating that the location was also utilized during the Early Woodland period (Koldehoff et al. 2002).



- LEGEND:**
- IAS Mound Location
 - Surrounding Properties Boundary (Approximate)
 - Study Area

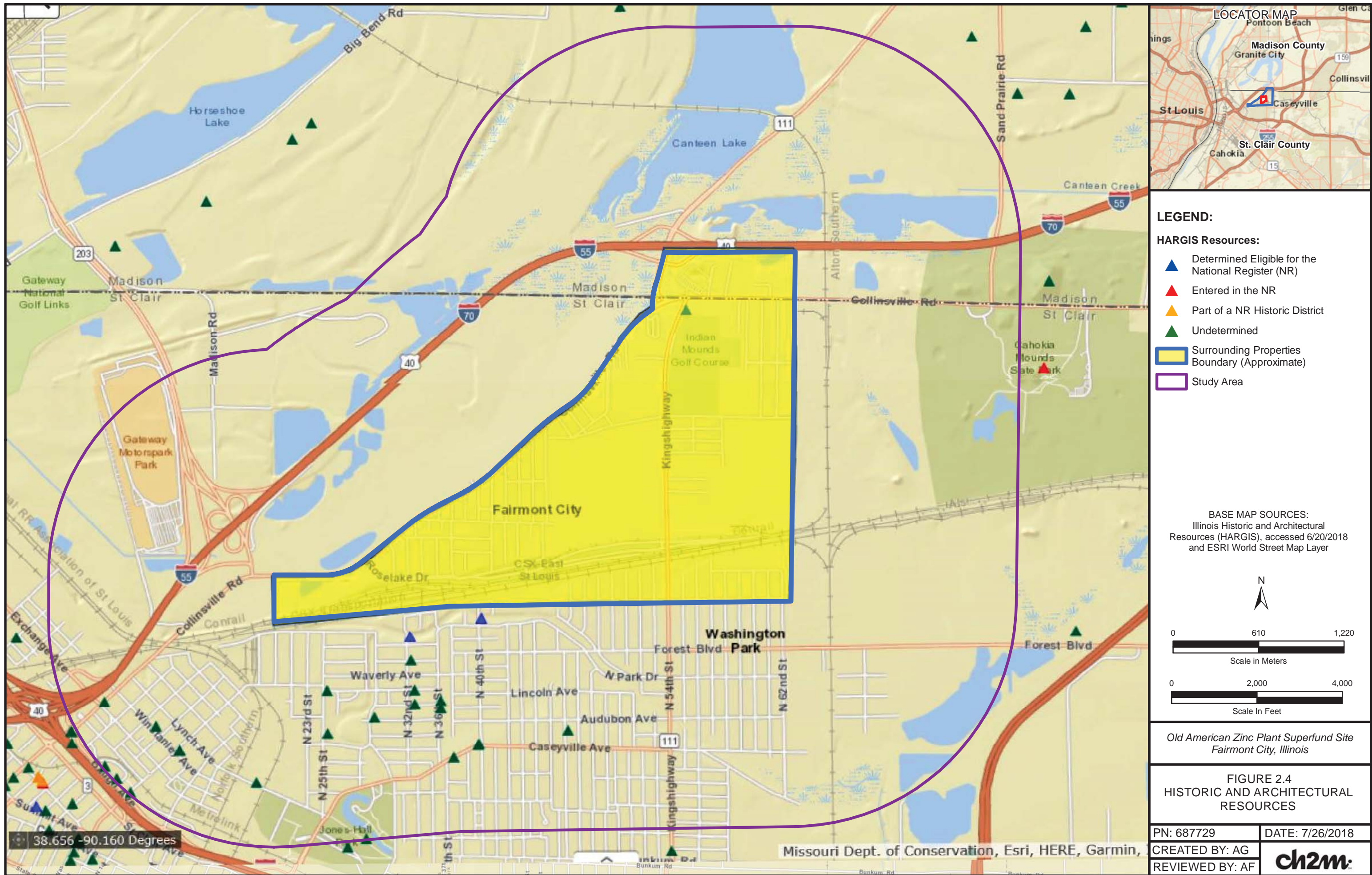
BASE MAP SOURCES:
Illinois Archaeology Survey Inventory of
Mound Sites (IAS), accessed 6/20/2018
and ESRI World Street Map Layer



Old American Zinc Plant Superfund Site
Fairmont City, Illinois

FIGURE 2.3
IAS MOUNDS MAP

PN: 687729	DATE: 7/26/2018
CREATED BY: AG	ch2m
REVIEWED BY: AF	



2.7 Cultural Resources Management Investigations

Sixty previous cultural resources investigations and two previous history/architecture surveys have been conducted within 1.6 kilometers (one mile) of the project (Table 2.3; Figure 2.5). Of the 60 previous cultural resources investigations within 1.6 kilometers (one mile) of the project, 16 surveys overlap portions of the project footprint. Section 2.7.1 summarizes the previous cultural resource investigations that overlap the project area. A total of 146.09 hectares (361 acres) have been previously surveyed within the project area.

The previous surveys conducted within the study area were primarily for transportation, water line or utility installation, natural resource and wetland reclamation projects, and academic investigations associated with Cahokia Mounds or East Metro Mounds sites. Five previous survey areas identified have temporary identification numbers that produced no results in the CRM report database for review. These include survey numbers 90002, 90706, 91791, 92043, and 96012. Of these, survey ID 90002 is located within the project footprint and discussed in further detail in Section 2.7.1. Survey numbers 90706, 91791, and 96012 are located in proximity to the East Metro Mound site and may be related to investigations into resources associated with this site. Survey number 92043 is located adjacent to survey 3600, which was a 1991 Phase I survey of a Borrow Pit location north of I-55/I-70 (De Mott 1991). Further, multiple previous survey areas are labeled as 99999, indicating that surveys that were mapped prior to the document database, and therefore do not correspond to available report records in the CRM report database. Many of these locations appear to align with transportation corridors, and therefore may be associated with railroad and roadway development projects.

Table 2.3. Previous Cultural Resources Surveys within the Study Area.

Report Number	Author(s)	Year	Title
234	Dorwin et al.	1981	An Archaeological Reconnaissance of Two Alternative Common Trailer or Flat Car Yard Locations in the East St. Louis Marge Project Area
361	Unsicker and Lange	1981	Report of Archaeological Investigations of the Area to be Affected by the Proposed Rail Connection Between the Baltimore and Ohio and the Louisville and Nashville Railroads in East St. Louis, Illinois
584	Koldehoff et al.	1983	A Cultural Resource Survey of Ten Proposed Dry Detention Basins in the Harding Ditch Area of St. Clair County, Illinois
848	Norris	1975	Horseshoe Lake State Park Archaeological Survey
964	Williams et al.	1982	Gateway to the Past: Cultural Resources Investigations in East St. Louis
1042	Iseminger	1980	A Summary of The Surface Collection of The Mound 75 (Gas Station) Tract at Cahokia Mounds State Historic Site, St. Clair County, Illinois
2493	Gums	1988	MRTC Alton Line
3199	Simon	1990	FAP 582 (IL 111) Bridge Over Horseshoe Lake Channel Section No. 6BR Job No. P98-015-84
3600	De Mott	1991	Phase I Archaeological Survey of a Borrow Pit Location, Horseshoe Lake Area, Madison County, Illinois
4017	Lopinot et al.	1989	Archaeological Investigations of the Proposed Sanitary Sewer Collection System, Eastern Portion of Village of Fairmont, St. Clair and Madison Counties, Illinois
5169	Holley et al.	1992	Archaeological Investigations at the Rouch Mound Group, Cahokia Mounds State Historic Site

Table 2.3. Previous Cultural Resources Surveys within the Study Area.

Report Number	Author(s)	Year	Title
6070	Markman and Mueller	1994	Cahokia Creek Camping and Recreation Development
7131	Pauketat et al.	1996	An Archaeological Survey of the Horseshoe Lake State Recreation Area, Madison County, Illinois
7214	Wells	1995	Phase I Survey, East St. Louis Housing Authority
7215	Wells	1995	Phase I Survey, East St. Louis Housing Authority
7217	Wells	1995	Phase I Survey, East St. Louis Housing Authority
7253	Holley et al.	1996	Investigations at the West Borrow Pit Mound Group, Cahokia Mounds State Historic Site
7475	Halpin	1996	Phase I Archaeological Reconnaissance Survey for the Proposed Wetland Mitigation Project in St. Clair County, Illinois
7582	Mueller and Markman	1996	East St. Louis HUD Housing Project: A Phase I Cultural Resources Survey
7681	Keller et al.	1994	Cahokia's Western Periphery: Recent Investigations on the Fingerhut Tract
7966	Witty	1996	SBI 4 Spur Ohio Avenue Between IL Route 203 and Madison Road
8385	Harl	1997	Monitoring of Replacement of Mississippi River Transmission Natural Gas Pipeline Through Four City Blocks, Fairmont City
8622	Kelly	1997	Metro East Emergency Project: Phase I, II, and III Archaeological Investigations of the Drainage Ditch Cleanout in Madison and St. Clair Counties, Illinois
8854	Holley et al.	1998	Promontory Mounds at the Cahokia Mounds State Historic Site: Results of the 1997 Field School Investigations
9116	Vollman	1998	Fairmont City Tract Phase I/II for Southwestern Bell Mobile Systems
9183	Watters et al.	1997	Investigations at Mounds 59, 60, 94 and the West Borrow Pit Group, Cahokia Mounds State Historic Site
9557	Burns and Wells	1998	Petra Chemical Sewer Extension Monitoring
9655	Booth and Koldehoff	1999	The EWP Project: Archaeological Investigations for the 1998 Metro East Ditch Cleanout Project in Madison and St. Clair Counties, Illinois
10237	Conner	1997	Phase I Archaeological Survey for Historic Properties Within Canteen Creek and Cahokia Canal Ditch Channel Rehabilitation, East St. Louis Flood Protection Rehabilitation Project, Madison and St. Clair Counties, Illinois
10359	Rohrbaugh	2000	Phase I Archaeological Reconnaissance Survey of Proposed Parking Lots at Gateway International Raceway, St. Clair County, Illinois
10551	Ott	2000	Phase I Cultural Resource Survey: Joyner-Kersee Center
10676	Witty	2000	FAP 582; IL 111 Bridge Replacement

Table 2.3. Previous Cultural Resources Surveys within the Study Area.

Report Number	Author(s)	Year	Title
10800	Keeney	2000	Phase II NRHP Eligibility Testing of Site 11S1206
10914	Witty	1999	FAP Route 582 (IL 111) from Collinsville Road (US 40) to Railroad Overpass South of Maryland Ave
11177	Boone	2000	FAP-999 New Mississippi River Crossing Wetland Mitigation Site Number 1
11199	Cramer and Naglich	2001	Monitoring Installation of Replacement Watermain, Fairmont City, Illinois
11719	Witty	2001	46th, 48th, 49th and Hallows
11764	Neal	1999	Parsons Place Apartments Phase I
11990	Naglich and Radziul	2001	Monitoring of Water Main Installation on Maryland Road, Fairmont City
12380	Harl	2002	Cultural Resource Survey of the Proposed 44th Street Extension, Fairmont City, Illinois
14014	Rickers and Wiant	2004	Phase I Archaeological Survey for Proposed Central City Property Residential Development, City of East St. Louis
14169	Latham	2003	Parsons Place Apartments Phase I
14437	Bailey and Kelly	2004	Washington Park Charles Manners School
14518	Witty	2004	FA 999/NMRC Detention Ponds North of I-55/70; East of IL 203
14554	Ott	2003	Phase I Cultural Resource Survey (Revised), Washington Park Tract
14886	Hjelsand	2005	Phase I Cultural Resource Survey: Emerson Park Subdivision, East St. Louis
15440	Witty and Koldehoff	2005	FAI/I-55/70 Bowman Avenue. & I-55 Bowman Maintenance Yard Pump Station Rehabilitation
15602	Unknown-Missing	Not Listed	Unknown-Missing (Trileaf 8921)
15725	McLaughlin	2006	A Phase I Cultural Resource Survey of a Proposed Sewer Line in Fairmont City, Illinois
16015	Kelly	2006	Jones Park Pavilion and Play Area
16115	Witty	2006	FAI 70 (I-55/70) Section 82-5 Parcel 800XC21
16293	Baskett	2007	Phase I Cultural Resource survey: River City Development-Phase II East St. Louis
16703	Witty	2007	Old Madison Road Improvements
17619	Booth	2008	Fairmont Wetland Interpretive Project

Table 2.3. Previous Cultural Resources Surveys within the Study Area.

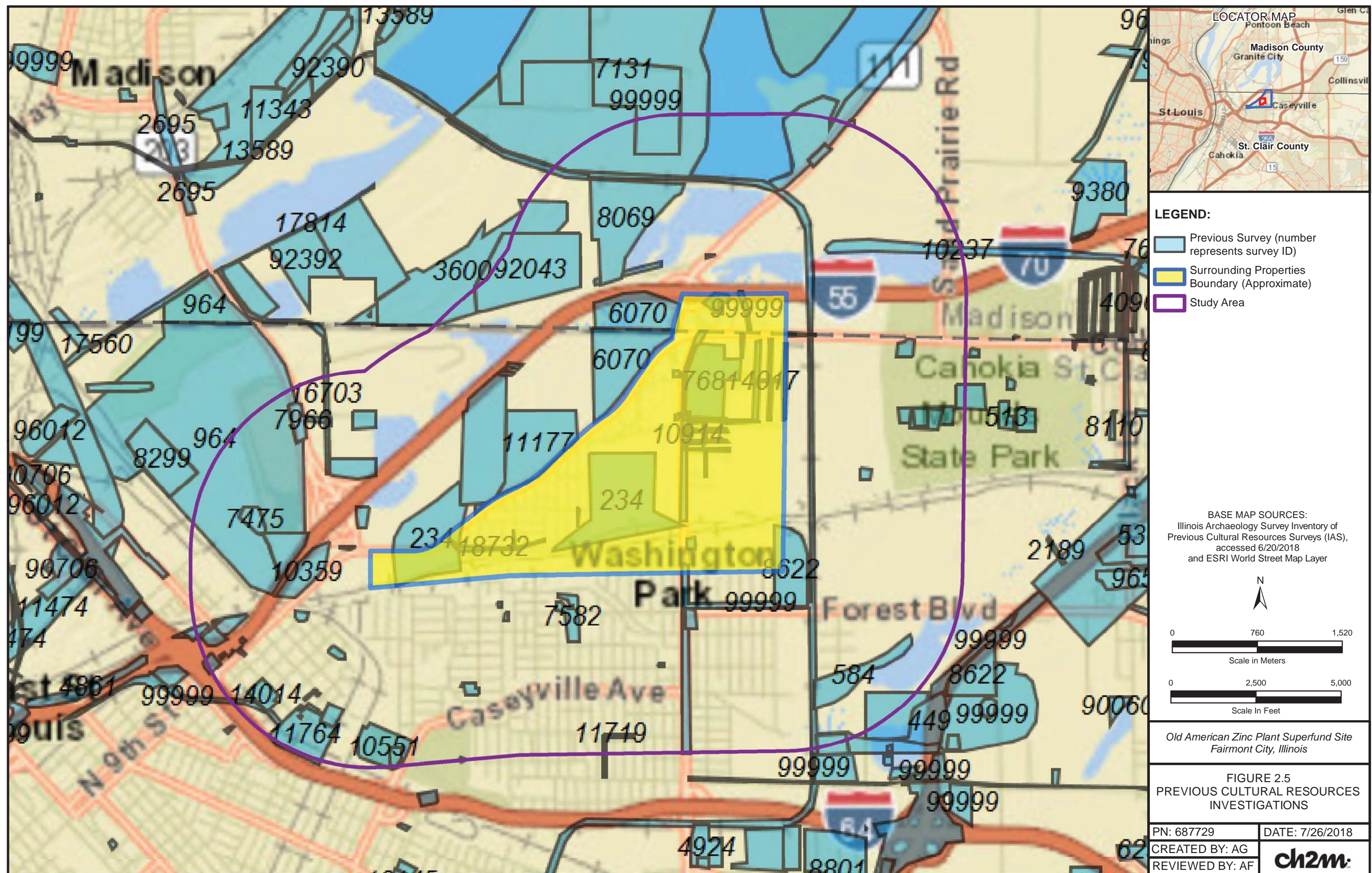
Report Number	Author(s)	Year	Title
18732	Klein and Hawkins	2010	A Phase I Cultural Resource Survey of a Proposed Water Line in Fairmont City, St. Clair County, Illinois
90002			No Record Found in CRM Report Database
90706			No Record Found in CRM Report Database
92043			No Record Found in CRM Report Database
92043			No Record Found in CRM Report Database
96012			No Record Found in CRM Report Database
99999			Multiple Occurrences - No Record Found in CRM Report Database

*Shaded Rows indicate previous cultural resource surveys within the project footprint

2.7.1 Cultural Resource Reports within Project Area

In 1981, Resource Analysis, Inc. reported on the archaeological reconnaissance of two alternative Trailer of Flat Car locations for the East St. Louis Marge Project area (Survey #234; Dorwin 1981). At the time of this literature review, a full report was not available for review via the Illinois CRM Report Archive. Klein and Hawkins (2010; Survey #18732) have reported that the 1981 survey was conducted to evaluate borrow locations associated with the Marge Project, and that no archaeological sites were recorded within the survey area. However, Harl (2002; Survey #12380) states that the 1981 survey documented three small lithic scatters, but that no diagnostic artifacts were recovered, and none of the material was deemed significant. It is also noted that the area examined as part of the 1981 survey was heavily impacted by modern industrial development (Harl 2002).

The Southern Illinois University at Edwardsville conducted an archaeological investigation on behalf of the Village of Fairmont, Illinois, for a proposed sanitary sewer collection system in St. Clair and Madison Counties (Lopinot et al. 1989; Survey #4017). The project was located within five of the 23 divisions of the Cahokia Mounds site, and 7.7 kilometers of sewer line trenching was subjected to archaeological investigation and excavation monitoring. The impacted Cahokia Mound site divisions were 11MS1/2 within Madison County and 11S34/6, 7, 8, and 9, all of which are also located within the current Project footprint. No cultural resources were identified within section 11S34/9; however, multiple Cahokia occupation areas with numerous cultural features and artifacts were recorded within the remaining four sections. Within division 11S34/6, one Emergent Mississippian (Edelhardt Phase, A.D. 950-1000) occupation with three pit features (located near the Macke site, ISM site No. S-164) and 26 features, including pits, buried lenses, basins, post molds, wall trenches, and structures associated with the Master Feed and Seed Company Site (Lohmann to Stirling Phase, A.D. 1000-1150), were identified. Results from division 11S34/7 also revealed two occupation areas: a wall trench and basin feature located south of Collinsville Road and a wall trench structure identified near the location of Powell Mound. Investigations within division 11S34/8 resulted in an abundance of lithic and ceramic material recovered, including 556 debitage fragments and tools. Identified lithic tools in this area included a flake point, chert hammerstone, two retouched flakes, 36 microdrills, a quarzitic sandstone mano, and 34 pieces of



rough rock (Lopinot et al. 1989). One historic feature was also identified within 11S34/8, composed of a molded dark-green glass base fragment, and whiteware, spongeware, salt-glazed stoneware, and an ironware fragment dating to the late 1880s. Lastly, five Mississippian Period features were uncovered in division 11MS2/1. These include a wall trench structure, a post mold or wall trench feature, two additional potential structures, and a pit feature. The project fieldwork consisted of archaeological monitoring while the trenches for the proposed waterlines were dug, and therefore additional survey within the project area was not recommended. However, the authors recommend that for future monitoring activities within the Cahokia site, areas with high potential to contain cultural resources should be excavated ahead of the construction activity, so that features may be mapped and potentially mitigated prior to proposed mechanical disturbance (Lopinot et al. 1989).

Archaeologists from Washington University and Southern Illinois University at Edwardsville presented the results of investigations of the Fingerhut Tract on the western periphery of Cahokia in 1994 (Keller et al. 1994; Survey #7681). The researchers state that at the time of the report, recent studies of the Fingerhut Tract had been completed by students, instructors, and volunteers associated with Washington University, Southern Illinois University, and the Cahokia Mounds Archaeological Society chapter of the Illinois Association for the Advancement of Archaeology. Much of this work was completed ahead of the construction of a golf driving range, today known as the Indian Mounds Golf Course. These efforts lead to several excavation areas, and the flagging and mapping of 1,795 surface artifacts. The report finds that the earliest occupation of the Fingerhut Tract occurred during the Early Woodland Period (Marion Phase). Later, scattered Lohman and Stirling Phase Mississippian settlements occupied the area, with much of the activity of the tract attributed to lithic and shell work areas, and perhaps the production of tribute items due to the presence of microlith material and basalt residue (Keller et al. 1994). Additionally, an early nineteenth century historic occupation was noted on the eastern portion of the tract.

In 1994, Markman & Associates performed a Phase I cultural resource survey of approximately 125 acres for the proposed Cahokia Creek Camping and Recreational development project (Markman and Mueller 1994; Survey #6070). The project included the construction of roads, trailer hookups, and facilities for campers and recreational activities. A small portion of this survey overlaps with the current project footprint near Collinsville Road and Illinois Route 111. The authors found that much of the survey area consisted of low-lying and saturated wetland areas, so that shovel testing was conducted only on dryer, low rises across the landscape (Markman and Mueller 1994). No cultural resources were encountered within the survey area. The surveyors also note that surrounding site locations are situated above 125 meters (410 feet) above mean sea level (amsl), whereas the highest elevation within the project area was 123 meters (405 feet) asml.

The Archaeological Research Center of St. Louis, Inc. conducted archaeological monitoring during trench excavation for an approximately 1,200-foot-long section of natural gas pipeline along Maryland Avenue, Delmar Road, and Kinder Road, on behalf of NorAm Gas Energy Corporation (Harl 1997; Survey #8385). A low-density prehistoric artifact scatter consisting of Burlington chert flakes and one shell-tempered ceramic sherd fragment were found near Maryland Avenue. Early twentieth century historic material was also encountered throughout the excavation area. One possible pit feature was identified near Kinder Road; however, no artifacts were recovered within the feature, and no temporal association could be established (Harl 1997). No additional work within the project area was recommended.

In 1997, the Illinois Transportation Archaeological Research Project presented the results of Phase I, II, and III archaeological investigations for the Metro East Emergency Project in Madison and St. Clair Counties (Kelly 1997; Survey #8622). For this project, 213 hectares (86 acres) were surveyed for six ditch cleanout areas, as well as locations for sediment stockpiling and burn pits for tree removal. One small portion of this large survey is located within the current project footprint, which includes the area surveyed for Reach E, located near the junction of Harding Ditch north of I-64 through Washington Park to the outlet at Indian Lake near I-55/70 in Fairmont City (Kelly 1997). Four archaeological sites and one

isolated find were recorded in this area east of North 62nd Street (sites 11S1184 through 11S1188). Site 11S1184 is partially mapped within the project footprint and is recorded as a small Emergent Mississippian-period occupation. The remaining four sites include a probable Mississippian farmstead (11S1185), two unspecified prehistoric lithic scatters (11S1186 and 1187), and one chert flake recorded as an isolated find (11S1186).

Booth and Koldehoff (1999; Survey #9655) reported on the results of the Metro East Ditch Cleanout Project (EWP Project) completed by the Illinois Transportation Archaeological Research Program (ITARP) on behalf of the Natural Resources Conservation Service (NRCS). This project was composed of 436 hectares (1,077 acres) of archaeological survey across Madison and St. Clair Counties within the American Bottomland region. In total, 16,484 prehistoric and 3,264 historic artifacts were recovered. Additionally, 59 archaeological sites were recorded, and 14 previously inventoried sites were revisited. Only a very small portion of this expansive survey effort falls within the current project footprint. This includes the 1.1-hectare (2.7-acre) Washington Park Spoils area, which the authors note is located outside of the Cahokia Mounds site boundaries (Booth and Koldehoff 1999). At the time of survey, the area was used as a municipal dumping ground, and no archaeological resources were identified.

In 1999, ITARP completed an archaeological survey of about 4.5 acres for a ditch cleanout project located along Route 582 (IL 111) from Collinsville Road to the railroad overpass south of Maryland Avenue (Witty 1999; Survey #10914). Approximately 85 percent of the project was located within the National Register boundaries of the Cahokia Mounds site. The project was also located within the Ananab Tilps site (11S1142). Ten shovel tests were excavated within the project area, and archaeological monitoring was recommended during construction activities due to proximity to both the Cahokia Mounds site and Ananab Tilps site (Witty 1999).

Also in 1999, Hanson Engineers Incorporated performed a Phase I/II cultural resource survey of 0.8 acre for a Southwestern Bell Mobile systems telecommunications tower within the Fairmont City Tract of the Cahokia Mounds site (Vollman 1999; Survey #9116). Since the project was located within the Cahokia Mounds site, archaeological testing consisted of two mechanical backhoe trenches to remove potentially disturbed top soil layers in order to identify potential buried cultural deposits. Results of the trenching indicated at least one Mississippian Period house basin, multiple pit features, possible intact midden areas, and historic-era post molds (Vollman 1999). Recovered artifacts included one Scallorn point, one non-diagnostic rim sherd, multiple shell, grog, or grit tempered sherds, several Burlington or pebble chert cores and micro-cores, multiple micro blades and drills, fire-cracked rock, and numerous chert waste flakes. A general temporal association of Lohmann or Stirling Phase Mississippian was assigned to the site. Additional Phase III archaeological investigations were recommended for the site should the development of the telecommunication facility proceed (Vollman 1999).

The Illinois Transportation Archaeological Research Program conducted a 26.9-hectare (66.5-acre) archaeological survey within a portion of an abandoned golf course proposed to be converted into a wetland in October 2000 (Boone 2000; Survey #11177). Most of the survey area lies outside of the Project footprint and to the north of Collinsville Road. However, small portions of the survey extend into the current project boundary, south of Collinsville Road. The survey identified site 11S1445, which is also partially located within the project footprint along Collinsville Road, and consists of both prehistoric and historic material. The prehistoric element is suggestive of a Late Woodland to Mississippian Period occupation and includes an artifact assemblage composed of debitage flakes, fire-cracked rock, shell-tempered ceramic sherds, burned clay fragments, and one Madison projectile point (Boone 2000). The historic component of 11S1445 is described as an Early Industrial to Post-War artifact scatter (1871-Post 1946; Boone 2000). A geomorphological analysis conducted as part of this survey effort also found that the area along Collinsville Road contained a high potential for buried archaeological deposits due to its placement on a sandy terrace scarp (Boone 2000). The report recommends Phase II testing in the area if construction activities cannot be avoided.

In 2001, the Archaeological Research Center of St. Louis, Inc. reported on the results of archaeological monitoring performed during the installation of an eight-inch replacement water line extending approximately 100 meters (328 feet) along Jondro Road, north of Collinsville Road, in Madison County (Cramer and Naglich 2001; Survey #11199). The authors note that the project area was located entirely within the Cahokia Mounds NHL and near Powell Mound (Mound 86). Powell Mound was second in size only to Monks Mound and was the central aspect of the Power Mound group. The Powell Mound group included mound numbers 84, 86, 87, and 88 (and potentially Jondro Mound 87 and Mound 85). However, Cramer and Naglich (2001) report that Powell Mound was nearly completely destroyed by steam-shovel excavation between December 1930 and February 1931, with sediment from the mound used to fill nearby low areas for cultivation. The mound was further destroyed by the construction of a gem store in the 1960s. Archaeological investigations conducted both during and after the mechanical leveling of the mound indicate that it was initially constructed as three small core mounds and later consolidated into a single platform mound over the course of five construction episodes (Ahler and DePuydt 1987). The site location was found to have been initially occupied during the Emergent Mississippian Period, with the construction of the mound likely taking place during the Sterling phase of the Mississippian Period, ca. A.D. 1100-1200 (Cramer and Naglich 2001). Two burial chambers were located near the top of the platform, one of which was examined in 1931. This chamber measured nearly six meters (20 feet) and contained bundle burials placed on a bed of cedar and bark and covered with shell garments (Young and Fowler 2000, Fowler 1989). The top of the platform at Powell Mound also included a pyramidal mound stage with a large cedar post, which formed a line pointing east to a similar post on the southwest corner of the first terrace on Monks Mound (Ahler and DePuydt 1987). Cramer and Naglich (2001) also report that archaeological surveys in the surrounding area have revealed a shell bead burial at mound 87 (Fowler 1989), Mississippian village occupation north of the Powell Mound (O'Brien 1972), and Mississippian houses and burial grounds south of the Powell Tract within the Fingerhut Tract (Fowler 1989). Despite the high probability of encountering cultural resources, Cramer and Naglich state that only previously disturbed soils, a brick pavement layer under the existing Jondro Road, and modern material such as plastic and metal were documented during monitoring. No additional work in the project area was recommended (Cramer and Naglich 2001).

The Archaeological Research Center of St. Louis, Inc. also conducted archaeological monitoring during trenching for an approximately 300-meter-long section of water line located along Maryland Avenue (Naglich and Radziul 2001; Survey #11990). Despite the project area being located within the Macke Site and western portion of the Cahokia Mounds site, no cultural resources or artifacts were identified. Prior disturbance from the installation of a natural gas pipeline and the construction of Maryland Avenue were attributed to the lack of intact cultural deposits (Naglich and Radziul 2001). No further work was recommended for the project area.

Harl (2002; Survey #12380) conducted a cultural resource survey for a proposed 78-meter (255-foot) water line located along the eastern side of 44th Street. The project area is described as being previously disturbed due the proximity to the existing sidewalk and roadway construction, and as a result of an existing drainage pipe. All cultural material observed during the survey was modern, and no archaeological sites were identified. No additional cultural resources investigation was recommended for the project area (Harl 2002).

In 2006, The Archaeological Research Center of St. Louis, Inc. completed a Phase I cultural resources survey for a proposed 198-meter (650-foot) sewer line to service a structure located at 5501 Congress in Fairmont City, Illinois (McLaughlin 2006; Survey #15725). The report notes that the project area is located within the Fingerhut site area, included with division 11S34/7 of the Cahokia Mounds site. No cultural features or artifacts were identified following a pedestrian and shovel testing survey. Like previous surveys conducted in the area for utility installation, the lack of cultural material was attributed to previous disturbance, likely resulting from a manmade drainage that crossed the project (McLaughlin 2006). No additional work was recommended for the project area.

The Archaeological Research Center of St. Louis, Inc. completed a 1.7-acre Phase I cultural resource survey for a proposed 1,127-meter new water line extending along Roselake Road and North 38th Street in Fairmont City (Klein and Hawkins 2010; Survey #18732). The survey area was subjected to archaeological testing consisting of pedestrian walk over, shovel testing, and seven deep soil auger tests. No cultural resources were identified during the survey, and the authors note that the lack of cultural material may be due to prior disturbance resulting from the nearby residential and industrial development. Project clearance was recommended; however, construction monitoring was encouraged because of the potential for deeply buried deposits (Klein and Hawkins 2010).

Survey #90002 and one instance of survey #99999 are mapped in the northern portion of the project area, south of the I-55/I-70 corridor and north of Collinsville Road. Additional areas of 99999 are mapped near the Indian Mounds Golf Course. As stated in Section 2.7, none of these survey numbers correspond with available reports in the CRM report database. However, several have reported that multiple previous archaeological investigations have occurred in the area. For instance, McLaughlin (2006) informs that Charles Bareis (1968) examined the Powell Mound group area, and revealed many Mississippian houses, pit features, and artifacts. McLaughlin states that Bareis also conducted investigations within the Fingerhut Tract in 1962, which uncovered several features related to a Mississippian burial ground. Further, work completed by Southern Illinois University at Edwardsville at the Fingerhut Tract for the widening of Highway 111 and construction of the Indian Mounds Golf Course increased the reported size of the Mississippian burial ground in the area and suggested that there may be two separate groups of burials linked to both Lohmann and Stirling Phase occupations (Witty 1993).

2.8 County Historic Maps

To better understand the prehistoric and historic landscapes for the Project, CH2M reviewed available historic mapping depicting the project area (Table 2.4). Historical atlases dating to the late-nineteenth century depict the project area as a predominantly rural area with more developed areas located to the west toward East St. Louis.

Table 2.4. Historic Maps.

Date	Publisher	Map Title
1861	Holmes and Arnold	<i>Madison County, Illinois, 1861 Atlas</i>
1863	J.W. Holmes	<i>Map of St. Clair County, Illinois</i>
1873	Brink, McCormick, & Co.	<i>Illustrated Encyclopedia and Atlas Map of Madison County, Ill</i>
1874	Warner and Beers	<i>An Illustrated Historical Atlas of St. Clair County, Illinois</i>
1892	Riniker, H., Robert Hagnaurer, and George K. Dickson	<i>New Atlas of Madison County, Illinois</i>
1899	Guy Beauman	<i>Map of St. Clair County, Illinois</i>
1906	Ogle, George A. & Co.	<i>Madison</i>
1936	Frank & John Hollman	<i>Current and Historical Atlas – St. Clair County, Illinois</i>

2.8.1 St. Clair County

The 1863 and 1874 atlases of St. Clair county depict the project area as largely rural and agricultural, with relatively few landowners listed in the vicinity. Cahokia Creek is shown flowing generally east to west toward the Mississippi River, and Indian Lake is located to the west of the project area. The Ohio and Mississippi Railroad is depicted running east-west south of the project area. In 1874, the St. Louis,

Vandalia & Terre Haute Railroad Company is illustrated running alongside of the Ohio and Mississippi Railroad. Additionally, the established community of Caseyville is seen to the east, while East St. Louis and Illinois City has been developed to the west. On both the 1863 and 1874 St. Clair atlases, the town of Fairmont City is not depicted. By 1899, East St. Louis has expanded in size, and developed further to the east. Indian Lake is also no longer depicted in 1899, and the area now appears parceled between landowners. The railroads to the south of the project area are illustrated as the Vandalia Line and the B&O Railroad in 1899. Fairmont City does not appear as an established community. By 1936 however, Fairmont City is shown northeast of an expanded East St. Louis. In addition, Washington Park is now depicted to the south of Fairmont City, and adjacent to East St. Louis. The railroad previously labeled as the Vandalia Line and B&O Railroad is now listed as the Pittsburgh, Cincinnati, Chicago and St. Louis Railroad.

2.8.2 Madison County

Review of the 1861 Madison County atlas reveals that much of the project area is pastoral, with a cluster of structures shown near the Village of Canteen. Both Cahokia Creek and Horse Shoe Lake are illustrated to the north. To the east, the established town of Collinsville can be seen. Interestingly, Monks Mound is illustrated south of Cahokia Creek, along with “Hotel Hubbards” to the east of the mound. Review of the 1873 atlas indicates that the area appears much the same as it did in 1861. However, more detail is provided in the area of Cahokia Mounds, and several more mound locations are depicted. In addition, a small levee is shown located south of Cahokia Creek and north of the illustrated mound locations. The small village of Canteen also appears to have been moved further to the west and is smaller in size. On both the 1892 and 1906 atlases, the area again appears mostly unchanged. However, the small levee depicted on the 1873 map is not included.

Summary and Recommendations

The literature review revealed that one archaeological resource is listed as an NHL and is on the NRHP and is a UNESCO World Heritage Site, 57 additional IAS-listed archaeological sites, including six NRHP-eligible sites, 22 IAS-listed mound sites, 26 HARGIS-listed resources, and one IAS-listed cemetery have been inventoried within 1.6 kilometers (one mile) of the project. Additionally, at least 60 previous cultural resources investigations have been documented within 1.6 kilometers (one mile) of the project.

The most significant of the previously inventoried resources within the project area is the Cahokia Mounds site, which was listed as an NHL in 1964 and placed on the NRHP in 1966 (NR 66000899; 11MS2 and 11S34). The Cahokia Mounds site is one of the most prominent archaeological sites in North America. Portions of eight out of the 24 Cahokia Mound site divisions fall within the project area. This site is also a UNESCO World Heritage Site; however, the current project boundary is located outside of the current UNESCO World Heritage Site boundaries. The remaining archaeological resources within the project area are composed of Late Woodland through Mississippian Period habitation sites, resulting from the region's heavy use during these periods. Further, many of the small sites in the area are recorded with mound components of their own.

In addition, it is important to highlight that several IAS-listed resources located both within and outside of the project area are recorded as falling under the Illinois HSRPA Burial Law. For this reason, careful consideration of potential to encounter both prehistoric and historic era human remains should be taken.

Historic mapping indicates that agricultural activities dominated the project and surrounding area during the historic period, with railroad and industrial development increasing throughout the twentieth century in both St. Clair and Madison Counties. Potential historic archaeological resources within the project are likely to be related to agricultural, domestic, or industrial activities.

Review of previously identified archaeological sites and historic mapping indicate a high probability of both prehistoric and historic archaeological deposits to be located in the project's vicinity. Within the project footprint, prehistoric sites identified have often been large and complex, especially those found in association with the Mississippian Period Cahokia Mounds or East Metro Mounds complexes. Analysis of previous cultural resource reports indicate that potential site density may be higher within the northeast portions of the project area, closest to established boundaries of the Cahokia Mounds site, the Powell Mound Tract, and the Fingerhut Tract (Lopinot et al. 1989; Keller et al. 1994; Cramer and Naglich 2001). In addition, several of the previous archaeological investigations conducted within the Fairmont City neighborhood have encountered previously disturbed soils and no cultural resources in some cases (Naglich and Radziul 2001; Harl 2002; McLaughlin 2006; Klein and Hawkins 2010). Other areas that appear to have lower cultural resource probability include low-lying wetland environments (Markman and Mueller 1994). The parcels currently included in the remediation plan are located outside of the current UNESCO World Heritage Site boundaries. However, due to the surrounding high site density and documented regional prehistoric settlement, the Project area as a whole should be considered as having a high potential to contain archaeological and historic resources.

The project as currently designed will not disturb soils within the parcels slated for remediation below a depth of 61 centimeters (24 inches). Following removal of highly contaminated soils, a barrier or cap will be emplaced, followed by a layer of clean soils. Therefore, this project is unlikely to impact deeply buried archaeological deposits within the selected parcels. However, if project plans change, additional parcels are added, or archaeological materials are identified during the soil sampling and removals, additional consultation with the Illinois Historic Preservation Division is strongly recommended.

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Unanticipated Discovery Plan and
Archaeological Monitoring Plan for
Cultural Resources
Old American Zinc Plant Superfund
Site and Surrounding Areas
Remediation Project, Saint Clair and
Madison Counties, Illinois

WA No. 224-RDRD-B5A1/Contract No. EP-S5-06-01

Prepared for



October 4, 2018

ch2m.SM

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Figure 1	Project Overview
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Acronyms and Abbreviations

CH2M	CH2M HILL Engineers, Inc.
Council	Advisory Council on Historic Preservation
EPA	Environmental Protection Agency
IHPA	Illinois Historic Preservation Agency
NHPA	National Historic Preservation Act
NPS	National Park Service
NRHP	National Register of Historic Places
OAZ	Old American Zinc
QPA	Qualified Professional Archeologist
UDP	Unanticipated Discovery Plan

Unanticipated Discovery Plan

Section 106 of the National Historic Preservation Act (NHPA) is identified in the U.S. Environmental Protection Agency (EPA) 2012 Record of Decision for the Old American Zinc Plant (OAZ) Superfund Site as an applicable or relevant and appropriate requirement, because of the nearby presence of the Cahokia Mounds State Historic Site, which is a National Historic Landmark and UNESCO World Heritage Site. The site is also listed as a historic property on the National Register of Historic Places (NRHP). A portion of the project area overlaps the boundary of Cahokia, as mapped by the Illinois Historic Preservation Agency (IHPA) and the NRHP. For EPA to meet the requirements of Section 106 of the NHPA, as defined in the Advisory Council on Historic Preservation (Council) regulations "Protection of Historic Properties" (36 Code of Federal Regulations Part 800), and following consultation with the Illinois State Historic Preservation Office (SHPO), the EPA has developed the following Unanticipated Discovery Plan (UDP) and Archaeological Monitoring Plan for use during soil sampling and related excavations in Saint Clair County and Madison County, Illinois. This plan will be implemented should new or additional historic properties be encountered during soil sampling, related excavation, and other ongoing activities on the proposed project (undertaking). This plan has been developed through consultation with the Illinois SHPO and in accordance with the regulations embodied in the "Protection of Historic Properties" issued by the Council (revised August 2004, www.achp.gov/regs-rev04.pdf). EPA and its cultural resources consultant, CH2M HILL, Inc. (CH2M), reviewed Illinois legislation (Illinois Compiled Statutes, Sections 3410, 3420, 3435, and 3440), which was used in the development of this UDP.

Termed "unanticipated discovery" or "post-review discovery," the identification of new or additional cultural resources during implementation of an undertaking typically occurs in the case of projects that involve excavation or ground-disturbing activities.

1.1 PROCEDURE WHEN CULTURAL MATERIALS ARE OBSERVED

The following measures will be implemented should an unanticipated cultural resource discovery be made by EPA, CH2M, any other contractor, or any subcontractor during construction of the proposed undertaking:

1. A Secretary of the Interior Qualified Archaeologist will be present during ground disturbing activities to monitor for the presence of previously undiscovered cultural resources.
2. The areal extent of all excavation areas should be recorded with GPS and dimensions measured. Excavated areas should be sketched on aerial photograph backdrops, as well. Profiles of excavation block walls will not be necessary, but a general measurement of the depth of each excavation area should be recorded. Areal extent of exposure of B-horizon should be recorded within each excavation area if not entirely exposed.
3. ALL exposed features will be mapped in plan. This includes major historic Euro-American or modern disturbances such as old house foundations or yard features (privies, cisterns, etc.). When only historic Euro-American or modern features are encountered a sketch map will suffice, however feature dimensions and relative distances should be measured and noted on the map. Scaled plan maps will be made of all exposed Pre-Columbian features and deposits. Feature dimension should be measured, and any exposed material noted. Fill colors and textures should be described, as well.

4. If human remains are encountered, all work will cease in the area and the coroner and SHPO archaeologist will be notified. Additional details are provided in the section below.
5. In some instances, a feature or deposits may need to be formally excavated even if remediation excavations will not impact them further. These cases will likely be rare and may not occur at all. For example, if an extraordinary artifact (i.e. figurines, tool caches, whole pots, etc.) is exposed at the top of a feature it should not be left in place. In some cases, excavation of the feature may be warranted (pit with a figurine, for example). The archaeologist may consult with the SHPO to determine the appropriate action for a feature or extraordinary artifact.
6. At the end of the 2018 work, a summary of monitoring activities will be prepared that, minimally, includes digitized maps showing the location of all observed excavated areas and feature plans.
7. Following the completion of the 2018 work, a plan will be developed for work to be conducted in 2019 in consultation with the Illinois SHPO.

In the case of an unanticipated discovery of human remains, EPA and CH2M will follow all relevant state and federal law, and recommendations regarding treatment of human remains as referenced above. EPA recognizes the importance of providing careful and respectful treatment for human remains recovered as an unanticipated discovery or as part of an archaeological investigation. In the event of an unanticipated discovery of human remains, EPA will consult with the NPS and IHPA as to the appropriate federally recognized tribes or other groups with which to consult. In coordination with the NPS, the IHPA, and other interested parties, a decision will be made for the treatment of the remains (for example, reburial, preservation in place, scientific study, sacred ritual, or a combination thereof). This protocol includes the following:

1. Should human remains be encountered, work in the general area of the discovery will stop immediately and the location will be immediately secured and protected from damage and disturbance. The area will be marked off with flagging, tape, or construction fencing.
2. The archaeologist will notify the coroner and SHPO archaeologist, Jeff Kruchten. Mr. Kruchten will contact Ms. Cobb, IDNR Archaeologist, who oversees the Human Skeletal Remains Protection Act. She will coordinate once the Coroner transfers jurisdiction.
3. Human remains, or associated artifacts will be left in place and not disturbed. No skeletal remains or materials associated with the remains will be collected or removed until appropriate consultation has taken place and a plan of action has been developed.
4. The coroner and SHPO archaeologist will make the official ruling on the nature of the remains, being either forensic or archaeological.
5. If human remains are determined to be Native American, the remains will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated. The EPA will consult with the NPS, SHPO, and federally recognized tribal groups to develop a plan of action that is consistent with the Native American Graves Protection and Repatriation Act.

If human remains are determined to be non-Native American, the remains will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated in consultation with the Coroner, the IHPA, and other appropriate parties. Historic research and consultation with local authorities and historic experts will be conducted by Amy Favret, M.A., an archaeologist qualified to excavate and analyze human remains in Illinois, to try to determine the possible identity and affiliation of the remains and determine if there are any lineal descendants who should be consulted concerning the treatment of the remains. Notice of the discovery will be published in local media outlets for at least 3 days to assist in identification of lineal descendants.

Contact List

EPA Environmental Contact

Sheila Desai, EPA
77 West Jackson Boulevard
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Chief Archaeologist
Illinois State Historic Preservation Office
Illinois Department of Natural Resources
1 Natural Resources Way
Springfield, Illinois 62702-1271
Email: Jeffery.Kruchten@illinois.gov
Phone: 217-785-1279

Illinois Department of Natural Resources

Dawn Cobb
HSRP Coordinator, Archaeologist
Email: dawn.cobb@illinois.gov
Phone: 217-785-4992

St. Clair County Coroner

Calvin Dye
10 Public Square
Belleville, Illinois 42220
Phone: 618-277-8682

Madison County Coroner

Steve Nonn
157 N Main Street #354
Edwardsville, Illinois 62025

SECTION 2 – CONTACT LIST

Email: sponnn@co.madison.il.us
Phone: 618-692-7478

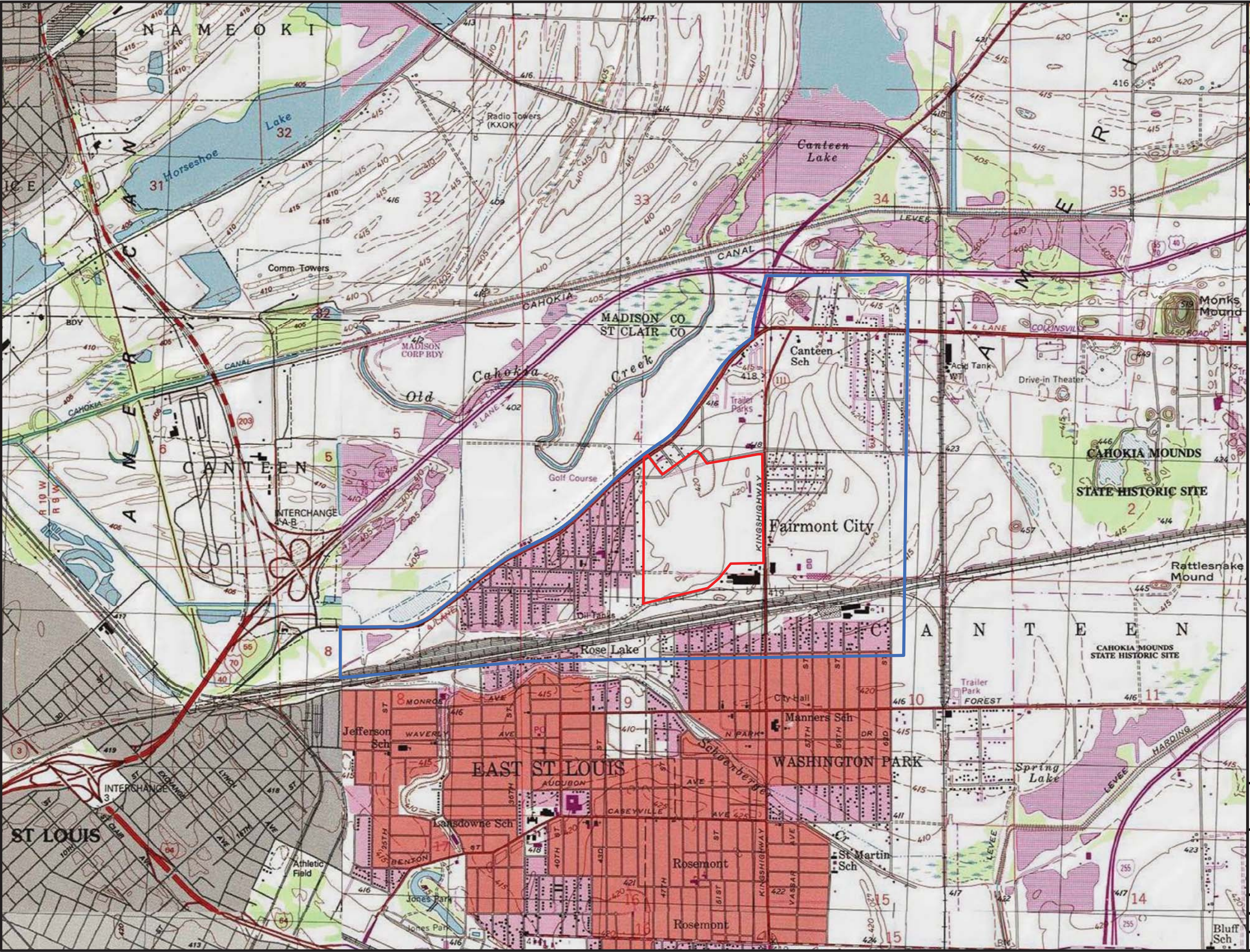
Other Interested Parties

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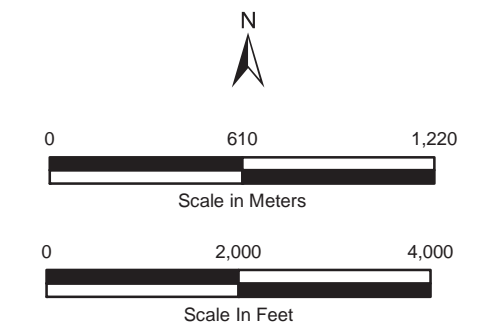
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Figure



- LEGEND:**
- OAZ Facility Boundary
 - Surrounding Properties Boundary (Approximate)

BASE MAP SOURCE:
USGS 7.5-minute Topographic Quadrangles:
Granite City, IL (published 1983) and Monks
Mound, IL (published 1974)



Old American Zinc Plant Superfund Site
Fairmont City, Illinois

**FIGURE 1.1
PROJECT OVERVIEW**

PN: 687729	DATE: 7/2/2018
CREATED BY: AG	ch2m
REVIEWED BY: AF	

Tribal Leaders

Tribe	Title	Tribal Leader	Primary Address	Secondary Address	City	State	Zip Code
Kaw Nation	Chairperson	Jacque Hensley	Drawer 50	698 Grandview Drive	Kaw City	OK	74641
Kickapoo Tribe in Kansas	Chairperson	Lester Randall	824 111th Drive		Horton	KS	66439
Kickapoo Tribe of Oklahoma	Chairperson	David Pacheco Jr.	PO Box 70		McLoud	OK	74851
Miami Tribe of Oklahoma	Chief	Douglas Lankford	PO Box 1326		Miami	OK	74355
Ponca Tribe of Indians of Oklahoma	Chairman	Earl Howe III	20 White Eagle Drive		Ponca City	OK	74601
Ponca Tribe of Nebraska	Chairperson	Larry Wright Jr.	PO Box 288		Niobrara	NE	67860
The Osage Nation	Principal Chief	Geoffrey Standing Bear	627 Grandview		Pawhuska	OK	74056
Peoria Tribe of Indians of Oklahoma	Chief	Craig Harper	118 S. Eight Tribes Trail		Miami	OK	74355
Kickapoo Traditional Tribe of Texas	Chairman	Estavio Elizondo	2212 Rosita Valley Road		Eagle Pass	TX	78852
Absentee-Shawnee Tribe	Governor	Edwina Butler-Wolfe	2025 S. Gordon Cooper Drive		Shawnee	OK	74810-9381
Citizen Potawatomi Nation	Chairman	John Barrett	1601 S. Gordon Cooper Drive		Shawnee	OK	74801
Delaware Nation of Oklahoma	President	Deborah Dotson	P.O. Box 825		Anadarko	OK	73005
Delaware Tribe of Indians	Chief	Chester Brooks	5100 Tuxedo Boulevard		Bartlesville	OK	74006
Eastern Shawnee Tribe of Oklahoma	Chief	Glenna J. Wallace	P.O. Box 350		Seneca	MO	64865
Forest County Potawatomi	Chairman	Ned Daniels	P.O. Box 340		Crandon	WI	54520
Hannahville Indian Community	Chairman	Kenneth Meshigaud	N 14911 Hannahville B-1 Road		Wilson	MI	49896-9728
Ho-Chunk Nation of Wisconsin	President	Wilford Cleveland	P.O. Box 667		Black River Falls	WI	54675
Iowa Tribe of Kansas and Nebraska	Chairman	Tim Rhodd	3345 Thrasher Road, #8		White Cloud	KS	66094
Iowa Tribe of Oklahoma	Chairman	Bobby Walkup	Route 1, Box 721		Perkins	OK	74059
Match-e-be-nash-she-wish Potawatomi	Chairman	Scott Sprague	2872 Mission Dr.		Shelbyville	MI	49344
Nottawaseppi Band of Huron Potawami	Chairman	Jamie Stuck	2221—1 & 1/2 Mile Road		Fulton	MI	49052
Pokagon Band of Potawatomi	Chairman	John P. Warren	P.O. Box 180	58620 Sink Road	Dowagiac	MI	49047
Prairie Band Potawatomi Nation	Chairwoman	Liana Onnen	Government Center	16281 Q Road	Mayetta	KS	66509
Sac & Fox Nation of Missouri in Kansas	Chairperson	Tiauna Carnes	305 N. Main Street		Reserve	KS	66434
Sac & Fox Nation of Oklahoma	Principal Chief	Kay Rhoads	920883 S Highway 99	Building A	Stroud	OK	74079
Sac & Fox Tribe of the Mississippi in Iowa	Chairman	Anthony Waseskuk	349 Meskwaki Road		Tama	IA	52339
Shawnee Tribe	Chairman	Ron Sparkman	P.O. Box 189		Miami	OK	74355
The Quapaw Tribe of Indians	Chairman	John Berrey	P.O. Box 765		Quapaw	OK	74363
United Keetoowah Band of Cherokee Indians	Chief	Joe Bunch	P.O. Box 746		Tahlequah	OK	74464
Winnebago Tribe of Nebraska	Chairman	Frank White	P.O. Box 687		Winnebago	NE	68071
Caddo Nation	Chairman	Tamara Francis	P.O. Box 487		Binger	OK	73009

Cultural Representatives

Tribal Representative	Position	Tribe	Primary Address	Secondary Address	City	State	Zip Code
Crystal Douglas	Tribal Historic Preservation Officer	Kaw Nation	Drawer 50	698 Grandview Drive	Kaw City	OK	74641
Fred Thomas	Historic Preservation Office	Kickapoo Tribe In Kansas	824 111th Drive		Horton	KS	66439
Kent Collier	Historic Preservation Office	Kickapoo Tribe of Oklahoma	PO Box 70		McLoud	OK	74851
Diane Hunter	Tribal Historic Preservation Officer	Miami Tribe of Oklahoma	PO Box 1326		Miami	OK	74355
Halona Clawson	Tribal Historic Preservation Officer	Ponca Tribe of Indians of Oklahoma	20 White Eagle Drive		Ponca City	OK	74601
Shannon Wright	Tribal Historic Preservation Officer	Ponca Tribe of Nebraska	PO Box 288		Niobrara	NE	68760
Andrea Hunter	Tribal Historic Preservation Officer	The Osage Nation	627 Grandview		Pawhuska	OK	74056
Logan Pappenfort	Historic Preservation Office	Peoria Tribe of Indians of Oklahoma	118 S. Eight Tribes Trail	PO Box 1527	Miami	OK	74355
Devon Frazier	Tribal Historic Preservation Officer	Absentee-Shawnee Tribe	2025 S. Gordon Cooper Drive		Shawnee	OK	74810-938
Kelli Mosteller	Tribal Historic Preservation Officer	Citizen Potawatomi Nation	Cultural Heritage Center	1601 S. Gordon Cooper	Shawnee	OK	74801
Sonnie Allen	Director of Cultural Preservation	Delaware Nation of Oklahoma	P.O. Box 825		Anardarko	OK	73005
Brice Obermeyer	Tribal Historic Preservation Officer	Delaware Tribe of Indians	Roosevelt Hall, Room 212	1 Kellogg Circle	Emporia	KS	66801
Larry Heady	THPO Special Assistant	Delaware Tribe of Indians	1929 E. 6th ST		Duluth	MN	55812
Brett Barnes	Historic Preservation Office	Eastern Shawnee Tribe of Oklahoma	P.O. Box 350		Seneca	MO	64865
Melissa Cook	Tribal Historic Preservation Officer	Forest County Potawatomi	Cultural Center, Library & Museum	8130 Mishkoswen Drive	Crandon	WI	54520
Earl Meshigaud	Historic Preservation Office	Hannahville Indian Community	P.O. Box 351, Highway 2 & 41		Harris	MI	49845
William Quackenbush	Tribal Historic Preservation Officer	Ho-Chunk Nation of Wisconsin	P.O. Box 667		Black River Falls	WI	54675
Lance Foster	Tribal Historic Preservation Officer	Iowa Tribe of Kansas and Nebraska	3345 Thrasher Road		White Cloud	KS	66094
Robert Fields	Historic Preservation Office	Iowa Tribe of Oklahoma	Route 1, Box 721		Perkins	OK	74059
Sydney Martin	Historic Preservation Office	Match-e-be-nash-she-wish Potawatomi	2872 Mission Drive		Shelbyville	MI	49344
Fred Jacko, JR	Culture Department Manager	Nottawaseppi Band of Huron Potawatomi	2221—1 1/2 Mile Road		Fulton	MI	49052
Matthew Bussler	Tribal Historic Preservation Officer	Pokagon Band of Potawatomi	P.O. Box 180	58620 Sink Road	Dowagiac	MI	49047
Warren Wahweotten	Tribal Council Member	Prairie Band Potawatomi Nation	Government Center	16281 Q Road	Mayetta	KS	66509
Lisa Montgomery	Environmental Protection Agency Director	Sac & Fox Nation of Missouri in Kansas	305 N. Main Street		Reserve	KS	66434
Historic Preservation Office	NAGPRA/Historic Preservation Office	Sac & Fox Nation of Oklahoma	920883 S. Highway 99	Building A	Stroud	OK	74079
Johnathan Buffalo	Historic Preservation Office	Sac & Fox Tribe of the Mississippi in Indiana	349 Meskwaki Road		Tama	IA	52339
Tonya Tipton	Historic Preservation Office	Shawnee Tribe	P.O. Box 189		Miami	OK	74355
Everett Bandy	Tribal Historic Preservation Officer	The Quapaw Tribe of Indians	P.O. Box 765		Quapaw	OK	74363
Sheila Bird	Tribal Historic Preservation Officer	United Keetoowah Band of Cherokee	P.O. Box 746		Tahlequah	OK	74464
Randy Tebeo	Tribal Historic Preservation Officer	Winnebago Tribe of Nebraska	P.O. Box 687		Winnebago	NE	68071
Tribal Historic Preservation Officer	Tribal Historic Preservation Officer	Caddo Nation	117 Memorial Lane	P.O. Box 487	Binger	OK	73009